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All genera of the world: Order Scorpiones (Animalia: Arthropoda: Arachnida)

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Abstract

The present contribution provides a consensus classification of the arachnid Order Scorpiones C.L. Koch, 1850, and updates the counts of extant and extinct genera and species through the end of 2025. Including the revisions implemented herein, there are 459 genus-group names available in Scorpiones by the end of 2025. Of these, 318 refer to currently accepted extant genera (220), subfossil genera (1) and extinct genera (97). Fifty-four genus-group names are newly synonymized, raising to 145 the number in synonymy, whereas sixteen genus-group names are revalidated and/or newly elevated to the rank of genus. Including the revisions implemented herein, Scorpiones includes 3,089 currently accepted species-group names (2,918 extant species, 1 subfossil species, and 170 extinct species) and 22 *nomina dubia*. Forty-seven species-group names are newly synonymized, whereas 43 species-group names are revalidated and/or newly elevated to the rank of species. 197 (62%) of the currently accepted genus-group names were described since 1950. Despite this descriptive activity, the suprageneric phylogeny and classification of Recent scorpions remains in a state of flux and largely decoupled from the phylogeny and classification of fossil forms.

Key words: †Branchioscorpionina, Neoscorpionina, †Bilobosternina, †Holosternina, †Lobosternina, †Meristosternina, Orthosternina, Buthida, Iurida, †Acanthoscorpionoidea, †Branchioscorpionoidea, Bothriuroidea, Buthoidea, Caraboctonoidea, Chactoidea, Chaeriloidea, †Cyclophthalmoidea, †Eoctonoidea, †Gigantoscorpionoidea, Hadruroidea, †Isobuthoidea, Iuroidea, †Loboarchaeoctonoidea, †Mesophonoidea, †Palaeobuthoidea, †Palaeophonoidea, †Palaeoscorpioidea, †Paraisobuthoidea, Pseudochactoidea, Scorpionoidea, †Spongiophonoidea, †Sucinlourencoidea, Superstitionioidea, Vaejovoidea, †Acanthoscorpionidae, Akravidae, †Anthracoscorpionidae, Anuroctonidae, †Archaeobuthidae, Belisariidae, Bothriuridae, †Branchioscorpionidae, Buthidae, Caraboctonidae, †Centromachidae, Chactidae, Chaerilidae, †Cyclophthalmidae, Diplocentridae, †Dolichophonidae, †Eobuthidae, †Eoctonidae, †Eoscorpiidae, Euscorpiidae, †Gallioscorpionidae, †Garnettiidae, †Gigantoscorpionidae, Hadruridae, †Heloscorpionidae, Hemiscorpiidae, Heteroscorpionidae, Hormuridae, †Isobuthidae, Iuridae, †Kronoscorpionidae, †Loboarchaeoctonidae, †Mazoniidae, †Mesophonidae, †Microlabiidae, Nullibrotheidae, †Palaeoburmesebuthidae, †Palaeobuthidae, †Palaeoeuscorpiidae, †Palaeophonidae, †Palaeopisthacanthidae, †Palaeoscorpiidae, †Palaeotrilineatidae, †Paraisobuthidae, †Pareobuthidae, †Praearcturidae, †Proscorpiidae, †Protobuthidae, †Protochactidae, †Protoischnuridae, Pseudochactidae, Rugodentidae, †Scoloposcorpionidae, Scorpionidae, Scorpiopidae, †Spongiophonidae, †Stenoscorpionidae, †Sucinlourencoidae, Superstitioniidae, †Telmatoscorpionidae, Troglotayosicidae, Typhlochactidae, Uroctonidae, Urodacidae, Vaejovidae, †Waterstoniidae, †Willsiscorpionidae, subfamilies, genera, synonyms, type species, scorpions

Introduction

Scorpions are iconic arachnids with chelate pedipalps and chelicerae, a pair of ventral pectines (chemo- and mechanoreceptors used to survey the texture of the ground surface and detect pheromones), and a narrow, flexible postabdomen (metasoma) bearing a telson with pair of venom glands and a terminal sting (aculeus) (Coddington *et al.*, 2004; Prendini, 2012).

Scorpions have fascinated and horrified humans since antiquity. Among the earliest appearances of the scorpion in human culture is its inclusion, as Scorpio, in the twelve constellations of the Zodiac by the Sumerians and Babylonians, 5,000 years ago (Cloudsley-Thompson, 1990). Scorpions are portrayed on countless objects from the ancient civilizations of the Assyrians, Aztecs, Egyptians, Etruscans, Greeks, Inca, Maya, Romans, and Phoenicians, the most famous being the Egyptian goddess, Serket, often depicted as a scorpion. In traditional African and Indian societies, the scorpion may embody evil, protect against evil, or portray human sexuality. Alacranes, as scorpions are known in Latin American countries, are common in sculptures, pictures, songs, and tattoos. Scorpions are an integral part of popular Western culture, featuring in books and films like *The Scorpion*

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King. Rock bands, police squads, and car tyres, among others, have been named after scorpions.

Scorpions evolved in the mid-Silurian, 435 Mya, and are among the oldest terrestrial arthropods (Dunlop *et al.*, 2008; Waddington *et al.*, 2015). The scorpion groundplan has changed little since then. Paleozoic scorpions closely resemble modern descendants, but some were far larger: *Brontoscorpio anglicus* Kjellesvig-Waering, 1972, is estimated to have measured 1 m, an order of magnitude greater than the largest extant *Pandinus* Thorell, 1876a, at 20 cm (Prendini *et al.*, 2003).

Living scorpions occur on all major landmasses except Antarctica, Greenland, Iceland, and New Zealand, and many oceanic islands (Prendini, 2012). Scorpion diversity is highest in the deserts and savannas of North and South America, sub-Saharan Africa, the Palearctic and Australia, but scorpions also occur in grasslands, forests (deciduous, coniferous and tropical), the intertidal zone, high mountains (up to 4,900 m), and deep caves (1 km below ground) (Ochoa *et al.*, 2011; Santibáñez-López *et al.*, 2014a).

Scorpion morphology is closely adapted to habitat (Prendini, 2001a, 2005). Some families are dominated by fossorial taxa, with morphological and behavioral innovations for burrowing (Polis, 1990; Adams *et al.*, 2016). Hirsute psammophiles, modified for walking on sand, and lithophiles, gracile and dorsoventrally compressed for life in rock crevices, evolved in the world's deserts, whereas eyeless, depigmented troglobites evolved in the world's caves (Volschenk & Prendini, 2008; Vignoli & Prendini, 2009; Prendini *et al*., 2021; Blasco-Aróstegui & Prendini, 2024).

Scorpions are generalist, opportunistic predators, eating almost anything they can overpower. Typical prey includes other terrestrial arthropods, especially insects and arachnids, as well as myriapods and terrestrial isopods. One Australian species appears to specialize on trapdoor spiders (Main, 1956). Scorpions have also been recorded catching and/or eating annelid worms, mollusks, and small vertebrates (including mammals, reptiles, frogs, and birds). They are often abundant and important in ecological food webs (Polis, 1990). In arid ecosystems, scorpions are dominant predators, eating up to 8 kg/ha of insects (Marples & Shorthouse, 1982), and prey for other organisms. Cannibalism and predation by other scorpion species may be the most important sources of scorpion mortality (McCormick & Polis, 1990), but other invertebrates (*e.g.*, centipedes, solifuges, and spiders) and vertebrates, including birds (*e.g.*, owls, roadrunners and hornbills), small mammals (*e.g.*, foxes, mongooses, honey badgers, possums, rodents, bats), lizards, snakes, and toads, are also important predators. Besides defending themselves with venomous stings and, in many species, powerful pedipalp chelae, some scorpions produce sound (stridulation or percussion) to deter predators (Rosin & Shulov, 1961; Dumortier, 1963; Cloudsley-Thompson & Constantinou, 1984; Lourenço & Cloudsley-Thompson, 1995; Esposito *et al.*, 2018) and one genus autotomizes the hind segments of its abdomen, sacrificing its anus and part of its hindgut (Mattoni *et al.*, 2015).

All scorpions fluoresce under long-wave ultraviolet light due to β-carboline and 7-hydroxyl-4-methylcoumarin in the epicuticle (Hjelle, 1990; Lourenço & Cloudsley-Thompson, 1996a; Fasel *et al.*, 1997; Frost *et al.*, 2001). Many withstand high diurnal temperatures (up to 50ºC), low nocturnal temperatures (by supercooling), and low relative humidity in the extreme arid or montane ecosystems they inhabit (Hadley, 1990). Desert species can endure up to 18 months without food or water, remaining underground in a state of diapause. Some fossorial species can withstand 48 hours underwater.

Scorpions are K-selected (Polis & Sissom, 1990) and resemble large vertebrates in life history traits. Reproduction is indirect, intromission occurring via a spermatophore. Scorpion courtship and mating is a complex affair, involving an elaborate 'dance', the *promenade à deux*, where the male grasps the female's pedipalps and leads her around while searching for a place to deposit a spermatophore (Polis & Sissom, 1990; Prendini, 2012). The courtship ritual may involve other behaviors such as a cheliceral 'kiss', where the male grasps the female's chelicerae with his own (Carrera *et al.*, 2009); juddering, a rocking back-and-forth motion (Alexander, 1957, 1959; Briceño & Bonilla, 2009); and a 'sexual sting', where the male injects venom into the female, possibly for pacification (Olguín-Pérez *et al.*, 2021). All scorpions are viviparous (Francke, 1982a) and some are parthenogenetic (Francke, 2007). Gestation times vary from months to over a year, and young are large at birth and altricial, clinging to their mother for the first few molts before dispersing. Scorpions are among the most long-lived terrestrial arthropods, taking 2−8 years to reach sexual maturity (Polis & Sissom, 1990) and living an average four years, but up to thirty in the larger species (Hjelle, 1990).

Scorpions are notorious in places like Mexico, where 100,000 envenomations (out of 1.2 million globally) cause approximately 800 fatalities (out of 3,250 globally) annually (Dehesa-Davila & Possani, 1994; Chippaux & Goyffon, 2008). Scorpion venoms are cocktails of neurotoxins that block sodium and potassium channels, preventing the transmission of nerve impulses across synapses (Simard & Watt, 1990). However, only about 45 species, mostly in a single family, are considered medically important (Borges & Graham, 2016). Scorpions possess some of the most complex proteinaceous venoms known, comprising 150–200 compounds, and scorpion venom is highly variable among species (Smertenko *et al.*, 2001; Dyason *et al.*, 2002; Newton *et al.*, 2007), yet the venom of only a few medically important taxa has been studied. Scorpion neurotoxins have great pharmacological potential. Some promise treatment for cancerous brain gliomas or autoimmune diseases, like multiple sclerosis, type I diabetes, psoriasis, and rheumatoid arthritis (Soroceanu *et al.*, 1998; Lyons *et al.*, 2002; Lewis & Garcia, 2003; Mamelak & Jacoby, 2007; Petricevich, 2010). Others hold potential as nonaddictive painkillers or ecofriendly pesticides (Karbat *et al.*, 2004; Gordon *et al.*, 2007; Gurevitz *et al.*, 2007; Diochot, 2021).

As K-selected, equilibrium species (Polis & Farley, 1980), scorpions are bioindicators, their disappearance

a signal of habitat degradation. Small litter sizes, long generation times and low survivorship contribute to a low rate of population increase for most scorpions (Polis & Farley, 1979; Polis & Sissom, 1990). Many species are habitat-specific and range-restricted (Williams, 1987; Prendini, 2001a, 2005), increasing their risk of extinction due to human activities. Scorpions are threatened by habitat loss and degradation, in turn caused by agriculture, mining, and urbanization, and exacerbated by climate change (Prendini, 2001b; Ureta *et al.*, 2020). Overharvesting for venom commerce and the exotic pet trade also puts scorpions at risk (Blasco-Aróstegui *et al.*, 2025a). Scorpion venom, valued at up to US$10 million per liter, has attracted interest from pharmaceutical companies and amateur harvesters, fueling a surge in illegal 'venom milking' farms (Zamani *et al.*, 2021). Some 350 scorpion species are sold in the exotic pet trade, among them 105,000 live *Pandinus imperator* (C.L. Koch, 1841), exported annually from West Africa to Europe and the U.S. (Prendini *et al.*, 2003; Marshall *et al.*, 2022; Herzig *et al.*, 2023; Lassaline *et al.*, 2025). Despite these threats, few scorpions receive formal protection (Blasco-Aróstegui *et al.*, 2025a). Only five species are currently listed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (IUCN, 1994; Lourenço & Cloudsley-Thompson, 1996b; CITES, 2025), and only 29 species, most rated 'Least Concern', are on the IUCN (2025) Red List of Threatened Species. These species account for less than 1% of known scorpion diversity (Blasco-Aróstegui *et al.*, 2025a).

Kraepelin (1891, 1894, 1895, 1899) presented the first comprehensive taxonomic treatments of all extant scorpion taxa known at the time, updated thirty years later by Werner (1934) and again by Millot & Vachon (1949). Lamoral & Reynders (1975) presented the first catalogue of scorpions described from sub-Saharan Africa, and Francke (1985) presented the first *Conspectus Genericus Scorpionorum*, listing all genus-group names of scorpions, extant and extinct, from 1758–1982. Kjellesvig-Waering's (1986) posthumously published monographic revision of fossil scorpions followed soon after. Sissom (1990) updated Francke's (1985) list. Fet *et al.* (2000) presented the first catalog of the families, genera and species of the order, covering all fossil and living taxa described from 1758–1998. Partial updates to the catalog were published by Kovařík (2001a, 2009) and Kovařík & Ojanguren-Affilastro (2013). Lists of suprageneric taxa by Soleglad & Fet (2003) and Prendini & Wheeler (2005) were further updated, with counts of genera and species, by Prendini (2011), while Dupré (2007) and Francke (2019) updated Francke's (1985) *Conspectus Genericus Scorpionorum* through 2006 (for extant taxa only) and 2018 (for extant and extinct taxa), respectively. Dunlop & Penney's (2012) list of fossil scorpion taxa was updated by Dunlop *et al.* (2023) and Dunlop & Garwood (2024).

The present contribution provides a consensus classification of scorpions and updates the counts of extant and extinct genera and species through the end of 2025. Due to ongoing disagreement regarding the phylogeny and supraspecific classification of scorpions, particularly extant taxa, several taxonomic decisions were necessarily implemented to introduce a measure of stability, based on the results of published phylogenetic analyses, assessments of taxon diagnoses and descriptions, and examination of type and nontype material (including topotypes), as appropriate. The comments of Mahony *et al.* (2024: 249) concerning amphibian taxonomy epitomize the current state of scorpion taxonomy:

> The increased availability of large-scale phylogenies has in part promulgated a practice of … excessively splitting clades at the "genus" level. Many of these new genus-level splits are predicated on untenable supporting evidence (*e.g.*, weakly supported phylogenies and purportedly "diagnostic" but actually variable, non-exclusive, or otherwise problematic opposing character state differences) without careful consideration of the effects on downstream applications … in many cases, the generic splitting of clades is not only unnecessary but also destabilizes … taxonomy, leading to a host of downstream issues that affect categories of the user community (stakeholders such as taxonomists, conservationists, evolutionary biologists, biogeographers, museum curators, educators, and the lay public) … taxonomists [should] consider the actual needs and interests of the larger non-taxonomic end-user community who fund the majority of taxonomic research, and who require a system that remains reasonably stable and is relatively intuitive …

Among other decisions, all subgenera and subspecies were abolished in accordance with Frost (2025), who noted that "the use of subgenus (an obscure rank at best) seems to have more to do with political gamesmanship … a way of concealing testable hypotheses under the rubric of stability, than anything that promote[s] systematists to test each others' hypotheses", and Burbrink *et al.* (2022: 1), who maintained that "using subspecies is indefensible on philosophical and empirical grounds". Reflecting on "injudicious application of the subspecies category by taxonomists uncertain of the reliability of characters or the status of taxa", Prendini (2001c: 17, 18) considered subspecies "junior synonyms of species unless they can be unequivocally differentiated on the basis of consistent morphological characters, in which case they represent valid species in the diagnostic sense, and are elevated accordingly", an approach applied herein.

Inevitably, some of the decisions presented will incite controversy. However, as with any classification, these decisions represent hypotheses that are based on evidence available at the time and are expected to undergo further testing. The resulting classification offers a new baseline from which additional analysis and revision may proceed. As noted by Platnick & Gertsch (1976: 9), recently cited by Lowe & Kovařík (2022: 93):

> ... if we insist on having all the "facts" before constructing hypotheses, we shall always have only "facts" and never hypotheses. Further, we suspect that most such objections have their root in a belief that a classification is a permanent statement of truth about the world, when it is in actuality only a hypothesis and as such is potentially testable ... and falsifiable.

TABLE 1. Current classification of the Order Scorpiones C.L. Koch, 1850.

Order **Scorpiones** C.L. Koch, 1850

†***Brontoscorpio*** Kjellesvig-Waering, 1972; †***Eramoscorpius*** Waddington, Rudkin & Dunlop, 2015; †***Gondwanascorpio*** Gess, 2013; †***Hubeiscorpio*** Walossek, Li & Brauckmann, 1990; †***Liassoscorpionides*** Bode, 1951; †***Palaeomachus*** Pocock, 1911; †***Permomatveevia*** Dammann, 2017; †***Titanoscorpio*** Kjellesvig-Waering, 1986; †***Wattisonia*** Wills, 1960

Family †**Proscorpiidae** Scudder, 1885

†***Archaeoctonus*** Pocock, 1911; †***Hydroscorpius*** Kjellesvig-Waering, 1986; †***Labriscorpio*** Leary, 1980; †***Proscorpius*** Whitfield, 1885b; †***Pseudoarchaeoctonus*** Kjellesvig-Waering, 1986; †***Waeringoscorpio*** Størmer, 1970

Suborder †**Branchioscorpionina** Kjellesvig-Waering, 1986

Infraorder †**Bilobosternina** Kjellesvig-Waering, 1986

Superfamily †**Branchioscorpionoidea** Kjellesvig-Waering, 1986

Family †**Branchioscorpionidae** Kjellesvig-Waering, 1986

†***Branchioscorpio*** Kjellesvig-Waering, 1986

Family †**Dolichophonidae** Petrunkevitch, 1953

†***Dolichophonus*** Petrunkevitch, 1949

Infraorder †**Holosternina** Kjellesvig-Waering, 1986

Superfamily †**Acanthoscorpionoidea** Kjellesvig-Waering, 1986

Family †**Acanthoscorpionidae** Kjellesvig-Waering, 1986

†***Acanthoscorpio*** Kjellesvig-Waering, 1986

Family †**Stenoscorpionidae** Kjellesvig-Waering, 1986

†***Stenoscorpio*** Kjellesvig-Waering, 1986

Superfamily †**Eoctonoidea** Kjellesvig-Waering, 1986

†***Aspiscorpio*** Kjellesvig-Waering, 1986

Family †**Anthracoscorpionidae** Frič, 1904

†***Anthracoscorpio*** Kušta, 1888

Family †**Eoctonidae** Kjellesvig-Waering, 1986

†***Eoctonus*** Petrunkevitch, 1913

Family †**Garnettiidae** Dubinin, 1962

†***Garnettius*** Petrunkevitch, 1953

Superfamily †**Gigantoscorpionoidea** Kjellesvig-Waering, 1986

Family †**Gigantoscorpionidae** Kjellesvig-Waering, 1986

†***Gigantoscorpio*** Størmer, 1963; †***Petaloscorpio*** Kjellesvig-Waering, 1986

Superfamily †**Mesophonoidea** Wills, 1910

Family †**Centromachidae** Petrunkevitch, 1953

†***Anthracochaerilus*** Kjellesvig-Waering, 1986; †***Centromachus*** Thorell & Lindström, 1885; †***Opsieobuthus*** Kjellesvig-Waering, 1986; †***Phoxiscorpio*** Kjellesvig-Waering, 1986; †***Pulmonoscorpius*** Jeram, 1994b

Family †**Gallioscorpionidae** Lourenço & Gall, 2004

† ***Gallioscorpio*** Lourenço & Gall, 2004

Family †**Heloscorpionidae** Kjellesvig-Waering, 1986

†***Heloscorpio*** Kjellesvig-Waering, 1986

Family †**Mazoniidae** Petrunkevitch, 1913

†***Mazonia*** Meek & Worthen, 1868a

Family †**Mesophonidae** Wills, 1910

†***Mesophonus*** Wills, 1910

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TABLE 1. (Continued)

Family †**Willsiscorpionidae** Kjellesvig-Waering, 1986

†***Willsiscorpio*** Kjellesvig-Waering, 1986

Superfamily †**Palaeoscorpioidea** Lehmann, 1944

Family †**Palaeoscorpiidae** Lehmann, 1944

†***Palaeoscorpius*** Lehmann, 1944

Superfamily †**Spongiophonoidea** Kjellesvig-Waering, 1986

Family †**Praearcturidae** Kjellesvig-Waering, 1986

†***Praearcturus*** Woodward, 1871

Family †**Spongiophonidae** Kjellesvig-Waering, 1986

†***Spongiophonus*** Wills, 1947b

Infraorder †**Lobosternina** Pocock, 1911

Family †**Waterstoniidae** Kjellesvig-Waering, 1986

†***Waterstonia*** Kjellesvig-Waering, 1986

Superfamily †**Isobuthoidea** Petrunkevitch, 1913

Family †**Eobuthidae** Kjellesvig-Waering, 1986

†***Eobuthus*** Frič, 1904

Family †**Eoscorpiidae** Scudder, 1884

†***Eoscorpius*** Meek & Worthen, 1868b; †***Eskiscorpio*** Kjellesvig-Waering, 1986; †***Trachyscorpio*** Kjellesvig-Waering, 1986

Family †**Isobuthidae** Petrunkevitch, 1913

†***Boreoscorpio*** Kjellesvig-Waering, 1986; †***Bromsgroviscorpio*** Kjellesvig-Waering, 1986; †***Feistmantelia*** Frič, 1904; †***Isobuthus*** Frič, 1904

Family †**Kronoscorpionidae** Kjellesvig-Waering, 1986

†***Kronoscorpio*** Kjellesvig-Waering, 1986

Family †**Pareobuthidae** Kjellesvig-Waering, 1986

†***Pareobuthus*** Wills, 1959

Superfamily †**Loboarchaeoctonoidea** Kjellesvig-Waering, 1986

Family †**Loboarchaeoctonidae** Kjellesvig-Waering, 1986

†***Loboarchaeoctonus*** Kjellesvig-Waering, 1986

Superfamily †**Palaeophonoidea** Thorell & Lindström, 1885

Family †**Palaeophonidae** Thorell & Lindström, 1885

†***Palaeophonus*** Thorell & Lindström, 1884b

Superfamily †**Paraisobuthoidea** Kjellesvig-Waering, 1986

Family †**Paraisobuthidae** Kjellesvig-Waering, 1986

†***Paraisobuthus*** Kjellesvig-Waering, 1986

Family †**Scoloposcorpionidae** Kjellesvig-Waering, 1986

†***Benniescorpio*** Wills, 1960; †***Scoloposcorpio*** Kjellesvig-Waering, 1986

Family †**Telmatoscorpionidae** Kjellesvig-Waering, 1986

†***Telmatoscorpio*** Kjellesvig-Waering, 1986

Infraorder †**Meristosternina** Kjellesvig-Waering, 1986

Superfamily †**Cyclophthalmoidea** Thorell & Lindström, 1885

Family †**Cyclophthalmidae** Thorell & Lindström, 1885

†***Cyclophthalmus*** Corda, 1835

Family †**Microlabiidae** Kjellesvig-Waering, 1986

†***Microlabis*** Corda, 1839

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TABLE 1. (Continued)

Superfamily †**Palaeobuthoidea** Kjellesvig-Waering, 1986

Family †**Palaeobuthidae** Kjellesvig-Waering, 1986

†***Palaeobuthus*** Petrunkevitch, 1913

Suborder **Neoscorpionina** Thorell & Lindström, 1885

†***Gymnoscorpius*** Jeram, 1994a

Infraorder **Orthosternina** Pocock, 1911

†***Compsoscorpius*** Petrunkevitch, 1949; †***Corniops*** Jeram, 1994a; †***Suraju*** Martine, Ricardi-Branco, Beloto & Jurigan, 2020

Family †**Palaeopisthacanthidae** Kjellesvig-Waering, 1986

†***Cryptoscorpius*** Jeram, 1994a; †***Palaeopisthacanthus*** Petrunkevitch, 1913

Parvorder **Buthida** Soleglad & Fet, 2003

†***Jeholia*** Xuan, Cai, Huang & Huang, 2025a

Family †**Palaeotrilineatidae** Lourenço, 2012a

†***Palaeotrilineatus*** Lourenço, 2012a

Superfamily **Buthoidea** C.L. Koch, 1837a

Family †**Archaeobuthidae** Lourenço, 2001a

†***Archaeobuthus*** Lourenço, 2001a

Family **Buthidae** C.L. Koch, 1837a

†***Uintascorpio*** Perry, 1995; ***Hoplocystis*** Karsch, 1884 [*nomen dubium*]

Subfamily **Buthinae** C.L. Koch, 1837a

Aegaeobuthus Kovařík, 2019a; ***Androctonus*** Ehrenberg, in Hemprich & Ehrenberg, 1828; ***Anomalobuthus*** Kraepelin, 1900; ***Apistobuthus*** Finnegan, 1932; ***Birulatus*** Vachon, 1974; ***Buthacus*** Birula, 1908; ***Butheolus*** Simon, 1882a; ***Buthiscus*** Birula, 1905; ***Buthus*** Leach, 1815; ***Cicileus*** Vachon, 1948; ***Compsobuthus*** Vachon, 1949a; ***Congobuthus*** Lourenço, 1999d; ***Hemibuthus*** Pocock, 1900a; ***Hottentotta*** Birula, 1908; ***Iranobuthus*** Kovařík, 1997b; ***Kraepelinia*** Vachon, 1974; ***Lanzatus*** Kovařík, 2001b; ***Leiurus*** Ehrenberg, in Hemprich & Ehrenberg, 1828; ***Liobuthus*** Birula, 1898; ***Lissothus*** Vachon, 1948; ***Mesobuthus*** Vachon, 1950a; ***Microbuthus*** Kraepelin, 1898a; ***Nanobuthus*** Pocock, 1895, **stat. rev.**; ***Odontobuthus*** Vachon, 1950a; ***Olivierus*** Farzanpay, 1987; ***Orthochiroides*** Kovařík, 1998a; ***Orthochirus*** Karsch, 1891; ***Pectinibuthus*** Fet, in Orlov & Vasilyev, 1984; ***Picobuthus*** Lowe, 2010; ***Plesiobuthus*** Pocock, 1900a; ***Sassanidotus*** Farzanpay, 1987; ***Somalibuthus*** Kovařík, 1998a; ***Trypanothacus*** Lowe, Kovařík, Stockmann & Šťáhlavský, 2019; ***Vachoniolus*** Levy, Amitai & Shulov, 1973; ***Xenobuthus*** Lowe, 2018

Subfamily **Charminae** Birula, 1917, **stat. rev.**

Butheoloides Hirst, 1925; ***Buthoscorpio*** Werner, 1936; ***Charmus*** Karsch, 1879b; ***Grosphus*** Simon, 1880; ***Karasbergia*** Hewitt, 1913; ***Microcharmus*** Lourenço, 1995b; ***Neogrosphus*** Lourenço, 1995b; †***Palaeogrosphus*** Lourenço, 2000c; ***Parabuthus*** Pocock, 1890a; ***Pseudolissothus*** Lourenço, 2001d; ***Pseudolychas*** Kraepelin, 1911; ***Somalicharmus*** Kovařík, 1998a; ***Teruelius*** Lowe & Kovařík, 2019; ***Thaicharmus*** Kovařík, 1995; ***Tityobuthus*** Pocock, 1893b; ***Uroplectes*** Peters, 1861b

Subfamily **Isometrinae** Kraepelin, 1891, **stat. rev.**

Afroisometrus Kovařík, 1997a; ***Afrolychas*** Kovařík, 2019a; ***Akentrobuthus*** Lamoral, 1976; ***Ananteris*** Thorell, 1891; ***Ananteroides*** Borelli, 1911; †***Archaeoananteroides*** Lourenço, in Lourenço & Velten, 2016; ***Australobuthus*** Locket, 1990; ***Babycurus*** Karsch, 1886; ***Barbaracurus*** Kovařík, Lowe & Šťáhlavský, 2018b; †***Cretaceousbuthus*** Lourenço, in Lourenço & Velten, 2022; ***Endotrichus*** Tikader & Bastawade, 1983, **stat. nov. et stat. rev.;** ***Hemilychas*** Hirst, 1911; ***Himalayotityobuthus*** Lourenço, 1997b; ***Isometroides*** Keyserling, 1885; ***Isometrus*** Ehrenberg, in Hemprich & Ehrenberg, 1828; ***Langxie*** Tang, Jia & Liu, 2023; ***Lychas*** C.L. Koch, 1845; ***Lychasioides*** Vachon, 1974; ***Odonturus*** Karsch, 1879d; †***Palaeoakentrobuthus*** Lourenço & Weitschat, 2000; †***Palaeoananteris*** Lourenço & Weitschat, 2001; †***Palaeobutheolus*** Lourenço, in Lourenço & Velten, 2025b; †***Palaeoisometrus*** Lourenço & Weitschat, 2005; †***Palaeolychas*** Lourenço & Weitschat, 1996; †***Palaeoprotobuthus*** Lourenço & Weitschat, 2000; †***Palaeospinobuthus*** Lourenço, Henderickx & Weitschat, 2005a; †***Palaeotityobuthus*** Lourenço & Weitschat, 2000; ***Reddyanus*** Vachon, 1972

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TABLE 1. (Continued)

Subfamily **Tityinae** Kraepelin, 1905, **stat. rev.**

Alayotityus Armas, 1973; ***Androcottus*** Karsch, 1879a, **stat. rev.**; ***Atreus*** Gervais, 1843, **stat. nov.**; ***Brazilotityus*** Lourenço, 2006, **stat. nov.**; ***Caribetityus*** Lourenço, 1999c, **stat. rev.**; ***Centruroides*** Marx, 1890a; ***Chaneke*** Francke, Teruel & Santibáñez-López, 2014; ***Heteroctenus*** Pocock, 1893d; ***Ischnotelson*** Esposito, Yamaguti, Souza, Pinto-da-Rocha & Prendini, 2017; ***Jaguajir*** Esposito, Yamaguti, Souza, Pinto-da-Rocha & Prendini, 2017; ***Mesotityus*** González-Sponga, 1981b; ***Microtityus*** Kjellesvig-Waering, 1966b; ***Parvabsonus*** Armas, 1974a, **stat. nov.**; ***Physoctonus*** Mello-Leitão, 1934a; ***Rhopalurus*** Thorell, 1876a; ***Tityopsis*** Armas, 1974b; ***Tityus*** C.L. Koch, 1836; ***Troglorhopalurus*** Lourenço, Baptista & Giupponi, 2004b; ***Zabius*** Thorell, 1893

Family †**Palaeoburmesebuthidae** Lourenço, 2015b

†***Betaburmesebuthus*** Lourenço & Beigel, 2015; †***Palaeoburmesebuthus*** Lourenço, 2002a; †***Paranotaburmesebuthus*** Lourenço, in Lourenço & Velten, 2024a

Family †**Protobuthidae** Lourenço & Gall, 2004

†***Protobuthus*** Lourenço & Gall, 2004

Superfamily **Chaeriloidea** Pocock, 1893b

Family **Chaerilidae** Pocock, 1893b

Subfamily **Chaerilinae** Pocock, 1893b

Chaerilus Simon, 1877

Subfamily †**Electrochaerilinae** Santiago-Blay, Fet, Soleglad & Anderson, 2004a

†***Electrochaerilus*** Santiago-Blay, Fet, Soleglad & Anderson, 2004a

Superfamily **Pseudochactoidea** Gromov, 1998

Family **Pseudochactidae** Gromov, 1998

Subfamily †**Chaerilobuthinae** Lourenço & Beigel, 2011

†***Chaerilobuthus*** Lourenço & Beigel, 2011

Subfamily **Pseudochactinae** Gromov, 1998

Pseudochactas Gromov, 1998; ***Qianxie*** Tang, 2022a

Subfamily **Troglokhammouaninae** Prendini, Ehrenthal & Loria, 2021

Troglokhammouanus Lourenço, 2007b

Subfamily **Vietbocapinae** Lourenço, 2012b

Aemngvantom Prendini, Ehrenthal & Loria, 2021; ***Vietbocap*** Lourenço & Pham, 2010

Superfamily †**Sucinlourencoidea** Rossi, 2015a

Family †**Sucinlourencoidae** Rossi, 2015a

†***Sucinlourencous*** Rossi, 2015a

Parvorder **Iurida** Soleglad & Fet, 2003

Superfamily **Bothriuroidea** Simon, 1880

Family **Bothriuridae** Simon, 1880

Subfamily **Bothriurinae** Simon, 1880

Andibothriurus Maury, 1975a, **stat. nov.**; ***Bothriurus*** Peters, 1861b; ***Brachistosternus*** Pocock, 1893d; ***Centromachetes*** Lönnberg, 1897; ***Cercophonius*** Peters, 1861b; ***Mauryius*** Ojanguren-Affilastro & Mattoni, 2017; ***Orobothriurus*** Maury, 1975b; ***Pachakutej*** Ochoa, 2004; ***Phoniocercus*** Pocock, 1893a; ***Rumikiru*** Ojanguren-Affilastro, Mattoni, Ochoa & Prendini, 2012; ***Tehuankea*** Cekalovic, 1973; ***Thestylus*** Simon, 1880; ***Timogenes*** Simon, 1880; ***Urophonius*** Pocock, 1893a; ***Vachonia*** Abalos, 1954

Subfamily **Lisposominae** Lawrence, 1928

Brandbergia Prendini, 2003; ***Lisposoma*** Lawrence, 1928

Superfamily **Caraboctonoidea** Kraepelin, 1905

Family **Caraboctonidae** Kraepelin, 1905

Caraboctonus Pocock, 1893a; ***Hadruroides*** Pocock, 1893b

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TABLE 1. (Continued)

Superfamily **Chactoidea** Pocock, 1893b

Family **Akravidae** Levy, 2007

Akrav Levy, 2007

Family **Anuroctonidae** Santibáñez-López, Ojanguren-Affilastro, Graham & Sharma, 2023

Anuroctonus Pocock, 1893b

Family **Belisariidae** Lourenço, 1998a

Belisarius Simon, 1879; ***Sardoscorpius*** Tropea & Onnis, 2020

Family **Chactidae** Pocock, 1893b

†***Araripescorpius*** Campos, 1986

Subfamily **Chactinae** Pocock, 1893b

Antridiscalceatus Rossi, 2018b; ***Auyantepuia*** González-Sponga, 1978; ***Cayooca*** González-Sponga, 1996b, **stat. rev.**; ***Brotheas*** C.L. Koch, 1838; ***Broteochactas*** Pocock, 1893d; ***Chactas*** Gervais, 1844; ***Guyanochactas*** Lourenço, 1998d; ***Hadrurochactas*** Pocock, 1893a; ***Neochactas*** Soleglad & Fet, 2003, **stat. rev.**; ***Spinochactas*** Lourenço, 2016b; ***Taurepania*** González-Sponga, 1978, **stat. rev.**; ***Teuthraustes*** Simon, 1878; ***Vachoniochactas*** González-Sponga, 1978

Subfamily **Chactopsinae** Soleglad & Sissom, 2001, **stat. nov.**

Chactopsis Kraepelin, 1912; ***Chactopsoides*** Ochoa, Rojas-Runjac, Pinto-da-Rocha & Prendini, 2013; ***Megachactops*** Ochoa, Rojas-Runjac, Pinto-da-Rocha & Prendini, 2013

Family **Euscorpiidae** Laurie, 1896

?†***Eoeuscorpius*** Kühl & Lourenço, 2017

Subfamily **Euscorpiinae** Laurie, 1896

Alpiscorpius Gantenbein, Fet, Largiadèr & Scholl, 1999; ***Euscorpius*** Thorell, 1876a; ***Tetratrichobothrius*** Birula, 1917

Subfamily **Megacorminae** Kraepelin, 1899

Megacormus Karsch, 1881b

Family **Nullibrotheidae** Soleglad & Fet, 2003, **stat. nov.**

Nullibrotheas Williams, 1974

Family †**Palaeoeuscorpiidae** Lourenço, 2003a

Subfamily †**Archaeoscorpiopinae** Lourenço, 2015a

†***Archaeoscorpiops*** Lourenço, 2015a; †***Burmesescorpiops*** Lourenço, 2016c

Subfamily †**Palaeoeuscorpiinae** Lourenço, 2003a

†***Palaeoeuscorpius*** Lourenço, 2003a

Family †**Protochactidae** Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022

†***Protochactas*** Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022

Family **Scorpiopidae** Kraepelin, 1905

Subfamily **Scorpiopinae** Kraepelin, 1905

Alloscorpiops Vachon, 1980b, **stat. rev.**; ***Dasyscorpiops*** Vachon, 1974, **stat. rev.**; ***Euscorpiops*** Vachon, 1980b, **stat. rev.**; ***Neoscorpiops*** Vachon, 1980b, **stat. rev.**; ***Parascorpiops*** Banks, 1928; ***Scorpiops*** Peters, 1861b

Subfamily **Troglocorminae** Soleglad & Sissom, 2001

Troglocormus Francke, 1981a

Family **Troglotayosicidae** Lourenço, 1998a, **stat. rev.**

Troglotayosicus Lourenço, 1981a

Family **Typhlochactidae** Mitchell, 1971

Subfamily **Alacraninae** Vignoli & Prendini, 2009

Alacran Francke, 1982b

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TABLE 1. (Continued)

Subfamily **Typhlochactinae** Mitchell, 1971

Sotanochactas Francke, 1986; ***Stygochactas*** Vignoli & Prendini, 2009; ***Typhlochactas*** Mitchell, 1971

Family **Uroctonidae** Mello-Leitão, 1934a, **stat. nov.**

Uroctonus Thorell, 1876a

Superfamily **Hadruroidea** Stahnke, 1974

Family **Hadruridae** Stahnke, 1974

Hadrurus Thorell, 1876a; ***Hoffmannihadrurus*** Fet & Soleglad, in Fet, Soleglad, Neff & Stathi, 2004

Superfamily **Iuroidea** Thorell, 1876a

Family **Iuridae** Thorell, 1876a

Subfamily **Calchinae** Birula, 1917

Calchas Birula, 1899; ***Neocalchas*** Yağmur, Soleglad, Fet & Kovařík, 2013

Subfamily **Iurinae** Thorell, 1876a

Iurus Thorell, 1876a

Superfamily **Scorpionoidea** Latreille, 1802

Family **Diplocentridae** Karsch, 1880a, **stat. rev.**

Subfamily **Diplocentrinae** Karsch, 1880a

Bioculus Stahnke, 1968; ***Cazierius*** Francke, 1978; ***Cryptoiclus*** Teruel & Kovařík, 2012; ***Didymocentrus*** Kraepelin, 1905; ***Diplocentrus*** Peters, 1861b; ***Heteronebo*** Pocock, 1899a; ***Kolotl*** Santibáñez-López, Francke & Prendini, 2014c; ***Oiclus*** Simon, 1880; ***Tarsoporosus*** Francke, 1978

Subfamily **Nebinae** Kraepelin, 1905, **stat. rev.**

Nebo Simon, 1878

Family **Hemiscorpiidae** Pocock, 1893b

Hemiscorpius Peters, 1861a

Family **Heteroscorpionidae** Kraepelin, 1905

Heteroscorpion Birula, 1903b

Family **Hormuridae** Laurie, 1896

Subfamily **Hadogeninae** Lourenço, 1999b, **stat. rev.**

Hadogenes Kraepelin, 1894

Subfamily **Hormurinae** Laurie, 1896

Hormiops Fage, 1933; ***Hormurus*** Thorell, 1876a; ***Liocheles*** Sundevall, 1833

Subfamily **Opisthacanthinae** Kraepelin, 1905, **stat. rev.**

Cheloctonus Pocock, 1892; ***Chiromachetes*** Pocock, 1899e; ***Chiromachus*** Pocock, 1893b; ***Iomachus*** Pocock, 1893b; ***Opisthacanthus*** Peters, 1861b; ***Palaeocheloctonus*** Lourenço, 1996c

Family †**Protoischnuridae** Carvalho & Lourenço, 2001

†***Cretaceoushormiops*** Lourenço, 2018; †***Cretaceousopisthacanthus*** Lourenço, in Lourenço & Velten, 2021; †***Protoischnurus*** Carvalho & Lourenço, 2001

Family **Rugodentidae** Bastawade, Sureshan & Radhakrishnan, 2005

Rugodentus Bastawade, Sureshan & Radhakrishnan, 2005

Family **Scorpionidae** Latreille, 1802

†***Mioscorpio*** Kjellesvig-Waering, 1986; †***Sinoscorpius*** Hong, 1983

Subfamily **Heterometrinae** Simon, 1879

Heterometrus Ehrenberg, in Hemprich & Ehrenberg, 1828; ***Chersonesometrus*** Couzijn, 1978; ***Deccanometrus*** Prendini & Loria, 2020; ***Gigantometrus*** Couzijn, 1978; ***Javanimetrus*** Couzijn, 1981; ***Sahyadrimetrus*** Prendini & Loria, 2020; ***Srilankametrus*** Couzijn, 1981

Subfamily **Opistophthalminae** Rossi, 2016

Opistophthalmus C.L. Koch, 1837a

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TABLE 1. (Continued)

Subfamily **Pandininae** Thorell, 1876a

Pandiborellius Rossi, 2015b; ***Pandinoides*** Fet, 1997a; ***Pandinops*** Birula, 1913; ***Pandinopsis*** Vachon, 1974; ***Pandinurus*** Fet, 1997a; ***Pandinus*** Thorell, 1876a; ***Pandipalpus*** Rossi, 2015b

Subfamily **Scorpioninae** Latreille, 1802

Scorpio Linnaeus, 1758

Family **Urodacidae** Pocock, 1893b, **stat. rev.**

Aops Volschenk & Prendini, 2008; ***Urodacus*** Peters, 1861b

Superfamily **Superstitionioidea** Stahnke, 1940

Family **Superstitioniidae** Stahnke, 1940

Superstitionia Stahnke, 1940

Superfamily **Vaejovoidea** Thorell, 1876a

Family **Vaejovidae** Thorell, 1876a

Subfamily **Smeringurinae** Soleglad & Fet, 2008

Paruroctonus Werner, 1934; ***Smeringurus*** Haradon, 1983; ***Vejovoidus*** Stahnke, 1974

Subfamily **Stahnkeinae** Soleglad & Fet, 2006, **stat. nov.**

Gertschius Graham & Soleglad, 2007; ***Serradigitus*** Stahnke, 1974; ***Wernerius*** Soleglad & Fet, 2008

Subfamily **Syntropinae** Kraepelin, 1905

Balsateres González-Santillán & Prendini, 2013; ***Chihuahuanus*** González-Santillán & Prendini, 2013; ***Kochius*** Soleglad & Fet, 2008; ***Konetontli*** González-Santillán & Prendini, 2013; ***Kuarapu*** Francke & Ponce-Saavedra, 2010; ***Maaykuyak*** González-Santillán & Prendini, 2013; ***Mesomexovis*** González-Santillán & Prendini, 2013; ***Paravaejovis*** Williams, 1980; ***Syntropis*** Kraepelin, 1900; ***Thorellius*** Soleglad & Fet, 2008; ***Vizcaino*** González-Santillán & Prendini, 2013

Subfamily **Vaejovinae** Thorell, 1876a

Catalinia Soleglad, Ayrey, Graham & Fet, 2017; ***Graemeloweus*** Soleglad, Fet, Graham & Ayrey, 2016; ***Kovarikia*** Soleglad, Fet & Graham, 2014; ***Pseudouroctonus*** Stahnke, 1974; ***Uroctonites*** Williams & Savary, 1991; ***Vaejovis*** C.L. Koch, 1836

The Order Scorpiones C.L. Koch, 1850, currently comprises an extinct suborder, †Branchioscorpionina Kjellesvig-Waering, 1986; an extant suborder, Neoscorpionina Thorell & Lindström, 1885; an extinct family *incertae sedis*, †Proscorpiidae Scudder, 1885, with six extinct genera; and nine extinct genera *incertae sedis* (Table 1).

Suborder †Branchioscorpionina comprises four extinct infraorders: †Bilobosternina Kjellesvig-Waering, 1986; †Holosternina Kjellesvig-Waering, 1986; †Lobosternina Pocock, 1911; and †Meristosternina Kjellesvig-Waering, 1986. Infraorder †Bilobosternina comprises superfamily †Branchioscorpionoidea Kjellesvig-Waering, 1986, with two monotypic families, †Branchioscorpionidae Kjellesvig-Waering, 1986, and †Dolichophonidae Petrunkevitch, 1953.

Infraorder †Holosternina comprises six superfamilies: †Acanthoscorpionoidea Kjellesvig-Waering, 1986, with two genera in families †Acanthoscorpionidae Kjellesvig-Waering, 1986, and †Stenoscorpionidae Kjellesvig-Waering, 1986; †Eoctonoidea Kjellesvig-Waering, 1986, with one genus *incertae sedis* and three genera in families †Anthracoscorpionidae Frič, 1904, †Eoctonidae Kjellesvig-Waering, 1986, and †Garnettiidae Dubinin, 1962; †Gigantoscorpionoidea Kjellesvig-Waering, 1986, with two genera in family †Gigantoscorpionidae Kjellesvig-Waering, 1986; †Mesophonoidea Wills, 1910, with six families, †Centromachidae Petrunkevitch, 1953, with five genera, and †Gallioscorpionidae Lourenço & Gall, 2004, †Heloscorpionidae Kjellesvig-Waering, 1986, †Mazoniidae Petrunkevitch, 1913, †Mesophonidae Wills, 1910, and †Willsiscorpionidae Kjellesvig-Waering, 1986, with one genus each; †Palaeoscorpioidea Lehmann, 1944, with the monotypic family †Palaeoscorpiidae Lehmann, 1944; and †Spongiophonoidea Kjellesvig-Waering, 1986, with two monotypic families, †Praearcturidae Kjellesvig-Waering, 1986, and †Spongiophonidae Kjellesvig-Waering, 1986.

Infraorder †Lobosternina comprises one monotypic family *incertae sedis*, †Waterstoniidae Kjellesvig-Waering, 1986, and four superfamilies: †Isobuthoidea Petrunkevitch, 1913, with five families, †Eobuthidae Kjellesvig-Waering, 1986, with one genus, †Eoscorpiidae Scudder, 1884, with three genera, †Isobuthidae Petrunkevitch, 1913, with four genera, and the monotypic †Kronoscorpionidae Kjellesvig-Waering, 1986, and †Pareobuthidae Kjellesvig-Waering, 1986; †Loboarchaeoctonoidea Kjellesvig-Waering, 1986, with the monotypic family †Loboarchaeoctonidae Kjellesvig-Waering, 1986; †Palaeophonoidea Thorell & Lindström, 1885, with one genus in family †Palaeophonidae Thorell & Lindström, 1885; and †Paraisobuthoidea Kjellesvig-

Waering, 1986, with three families, †Scoloposcorpionidae Kjellesvig-Waering, 1986, with two genera, and †Paraisobuthidae Kjellesvig-Waering, 1986, and †Telmatoscorpionidae Kjellesvig-Waering, 1986, with one genus each.

Infraorder †Meristosternina comprises two superfamilies, †Cyclophthalmoidea Thorell & Lindström, 1885, with two genera in families, †Cyclophthalmidae Thorell & Lindström, 1885, and †Microlabiidae Kjellesvig-Waering, 1986; and †Palaeobuthoidea Kjellesvig-Waering, 1986, with the monotypic family †Palaeobuthidae Kjellesvig-Waering, 1986.

Suborder Neoscorpionina comprises an extinct genus *incertae sedis* and extant infraorder Orthosternina Pocock, 1911. Orthosternina comprises three extinct genera *incertae sedis*; an extinct family *incertae sedis*, †Palaeopisthacanthidae Kjellesvig-Waering, 1986, with two genera; and two parvorders, Buthida Soleglad & Fet, 2003, and Iurida Soleglad & Fet, 2003.

Parvorder Buthida comprises an extinct genus *incertae sedis*; an extinct family *incertae sedis*, †Palaeotrilineatidae Lourenço, 2012a, comprising an extinct genus; three extant superfamilies, Buthoidea C.L. Koch, 1837a, Chaeriloidea Pocock, 1893b, and Pseudochactoidea Gromov, 1998; and one extinct superfamily, †Sucinlourencoidea Rossi, 2015a. Superfamily Buthoidea comprises three extinct families, †Archaeobuthidae Lourenço, 2001a, and †Protobuthidae Lourenço & Gall, 2004, with one extinct genus each, and †Palaeoburmesebuthidae Lourenço, 2015b, with three extinct genera; and extant family Buthidae C.L. Koch, 1837a, with one extinct genus *incertae sedis*, a *nomen dubium*, and four extant subfamilies: Buthinae C.L. Koch, 1837a, with 35 extant genera; Charminae Birula, 1917, **stat. rev.**, with 15 extant genera and an extinct genus; Isometrinae Kraepelin, 1891, **stat. rev.**, with 18 extant genera and ten extinct genera; and Tityinae Kraepelin, 1905, **stat. rev.**, with 19 extant genera. Superfamily Chaeriloidea comprises extant family Chaerilidae Pocock, 1893b, with an extant genus in subfamily Chaerilinae Pocock, 1893b, and an extinct genus in subfamily †Electrochaerilinae Santiago-Blay, Fet, Soleglad & Anderson, 2004a. Superfamily Pseudochactoidea Gromov, 1998, comprises extant family Pseudochactidae Gromov, 1998, with an extinct genus in subfamily †Chaerilobuthinae Lourenço & Beigel, 2011, two extant genera each in subfamilies Pseudochactinae Gromov, 1998, and Vietbocapinae Lourenço, 2012b, and an extant genus in Troglokhammouaninae Prendini, Ehrenthal & Loria, 2021. Superfamily †Sucinlourencoidea comprises the monotypic family †Sucinlourencoidae Rossi, 2015a.

Parvorder Iurida comprises eight extant superfamilies: Bothriuroidea Simon, 1880; Caraboctonoidea Kraepelin, 1905; Chactoidea Pocock, 1893b; Hadruroidea Stahnke, 1974; Iuroidea Thorell, 1876a; Scorpionoidea Latreille, 1802; Superstitionioidea Stahnke, 1940; and Vaejovoidea Thorell, 1876a. Superfamily Bothriuroidea comprises extant family Bothriuridae Simon, 1880 with two subfamilies, Bothriurinae Simon, 1880, with 15 extant genera, and Lisposominae Lawrence, 1928, with two extant genera. Superfamily Caraboctonoidea comprises two extant genera in family Caraboctonidae Kraepelin, 1905. Superfamily Chactoidea comprises two extinct families, the monotypic †Protochactidae Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022, and †Palaeoeuscorpiidae Lourenço, 2003a, comprising two subfamilies, †Archaeoscorpiopinae Lourenço, 2015a, with two genera, and the monotypic †Palaeoeuscorpiinae Lourenço, 2003a; a subfossil genus in family Akravidae Levy, 2007; and nine extant families, Anuroctonidae Santibáñez-López, Ojanguren-Affilastro, Graham & Sharma, 2023, Nullibrotheidae Soleglad & Fet, 2003, **stat. nov.**, Troglotayosicidae Lourenço, 1998a, **stat. rev.**, and Uroctonidae Mello-Leitão, 1934a, **stat. nov.**, with one extant genus each; Belisariidae Lourenço, 1998a, with two extant genera; Chactidae Pocock, 1893b, with an extinct genus *incertae sedis* and two extant subfamilies, Chactinae Pocock, 1893b, with 13 extant genera, and Chactopsinae Soleglad & Sissom, 2001, **stat. nov.**, with three extant genera; Euscorpiidae Laurie, 1896, with an extinct genus *incertae sedis* and two extant subfamilies, Euscorpiinae Laurie, 1896, with three extant genera, and Megacorminae Kraepelin, 1899, with one extant genus; Scorpiopidae Kraepelin, 1905, with two extant subfamilies, Scorpiopinae Kraepelin, 1905, with six extant genera, and Troglocorminae Soleglad & Sissom, 2001, with one extant genus; and Typhlochactidae Mitchell, 1971, with two extant subfamilies, Alacraninae Vignoli & Prendini, 2009, with one extant genus, and Typhlochactinae Mitchell, 1971, with three extant genera. Superfamily Hadruroidea comprises two extant genera in family Hadruridae Stahnke, 1974. Superfamily Iuroidea comprises extant family Iuridae Thorell, 1876a, with two extant subfamilies: Calchinae Birula, 1917, with three extant genera; and Iurinae Thorell, 1876a, with one extant genus. Superfamily Scorpionoidea comprises an extinct family, †Protoischnuridae Carvalho & Lourenço, 2001, with three genera; and seven extant families: Diplocentridae Karsch, 1880a, **stat. rev.**, with two extant subfamilies, Diplocentrinae Karsch, 1880a, with nine extant genera, and Nebinae Kraepelin, 1905, **stat. rev.**, with one extant genus; Hemiscorpiidae Pocock, 1893b, Heteroscorpionidae Kraepelin, 1905, and Rugodentidae Bastawade, Sureshan & Radhakrishnan, 2005, each with an extant genus; Hormuridae Laurie, 1896, with three extant subfamilies, Hadogeninae Lourenço, 1999b, **stat. rev.**, with one extant genus, Hormurinae Laurie, 1896, with three extant genera, and Opisthacanthinae Kraepelin, 1905, **stat. rev.**, with six extant genera; Scorpionidae Latreille, 1802, with two extinct genera *incertae sedis* and four extant subfamilies, Heterometrinae Simon, 1879, and Pandininae Thorell, 1876a, each with seven extant genera, and Opistophthalminae Rossi, 2016, and Scorpioninae Latreille, 1802, each with one extant genus; and Urodacidae Pocock, 1893b, **stat. rev.**, with two extant genera. Superfamily Superstitionioidea comprises extant, monotypic family Superstitioniidae Stahnke, 1940. Superfamily Vaejovoidea comprises extant family Vaejovidae Thorell, 1876a, with four extant subfamilies: Smeringurinae Soleglad & Fet, 2008, with three extant genera; Stahnkeinae Soleglad & Fet, 2006, **stat. nov.**,

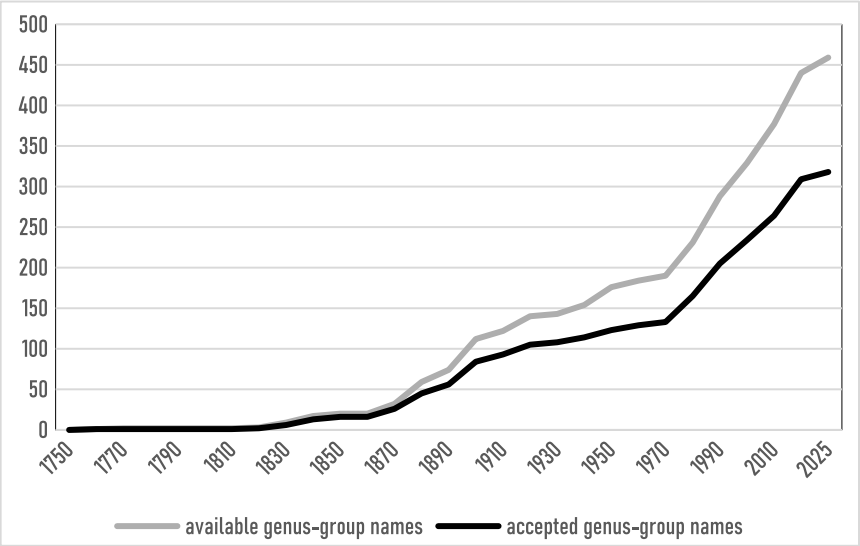

FIGURE 1. Cumulative number of available and accepted genus-group names in the Order Scorpiones C.L. Koch, 1850, by decade.

with three extant genera; Syntropinae Kraepelin, 1905, with eleven extant genera; and Vaejovinae Thorell, 1876a, with six extant genera.

Including the revisions implemented herein (Appendix 1), there are 459 genus-group names available in Scorpiones by the end of 2025. Of these, 318 refer to currently accepted extant genera (220), subfossil genera (1) and extinct genera (97). Fifty-four genus-group names are newly synonymized, raising to 145 the number in synonymy, whereas sixteen genus-group names are revalidated and/or newly elevated to the rank of genus. 197 (62%) of the currently accepted genus-group names were described since 1950 (Fig. 1). Including the revisions implemented herein (Appendix 1), Scorpiones includes 3,089 currently accepted species-group names (2,918 extant species, 1 subfossil species, and 170 extinct species) and 22 *nomina dubia*. Forty-seven species-group names are newly synonymized, whereas 43 species-group names are revalidated and/or newly elevated to the rank of species.

Half a century of phylogenetic analyses, based on morphological characters, multilocus DNA sequences, mitochondrial genomes, and phylotranscriptomic or phylogenomic datasets (*e.g.*, Lamoral, 1980; Stockwell, 1989; Jeram, 1994a; Prendini, 2000; Soleglad & Fet, 2003; Santibáñez-López *et al*., 2019, 2023; Štundlová *et al*., 2022; Du *et al.*, 2024; Joshi *et al*., 2025) has advanced understanding of the major clades of the scorpion tree. However, the suprageneric phylogeny and classification of living scorpions remain in a state of flux. Many taxa are monotypic or narrowly defined, as a result of excessive splitting, leaving others demonstrably paraphyletic. Extinct scorpions, more diverse morphologically than extant forms, are pivotal to resolving the basal clades of the crown group (Stockwell, 1989; Jeram, 1994a, 1998), but their phylogeny and classification are largely decoupled from Recent taxa.

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Order **Scorpiones** C.L. Koch, 1850 (1837a)
(1 extant suborder, 1 extinct suborder, 1 extinct family and 9 extinct genera *incertae sedis*)

Incertae sedis

†***Brontoscorpio*** Kjellesvig-Waering, 1972 [1 extinct species]. Type species: †*Brontoscorpio anglicus* Kjellesvig-Waering, 1972, by original designation.

†***Eramoscorpius*** Waddington, Rudkin & Dunlop, 2015 [1 extinct species]. Type species: †*Eramoscorpius brucensis* Waddington, Rudkin & Dunlop, 2015, by original designation.

†***Gondwanascorpio*** Gess, 2013 [1 extinct species]. Type species: †*Gondwanascorpio emzantsiensis* Gess, 2013, by original designation.

†***Hubeiscorpio*** Walossek, Li & Brauckmann, 1990 [1 extinct species]. Type species: †*Hubeiscorpio gracilitarsus* Walossek, Li & Brauckmann, 1990, by monotypy.

†***Liassoscorpionides*** Bode, 1951 [1 extinct species]. Type species: †*Liassoscorpionides schmidti* Bode, 1951, by monotypy.

†***Palaeomachus*** Pocock, 1911 [1 extinct species]. Type species: †*Eoscorpius anglicus* Woodward, 1876 = †*Palaeomachus anglicus* (Woodward, 1876), by original designation.

†***Permomatveevia*** Dammann, 2017 [1 extinct species]. Type species: †*Permomatveevia perneri* Dammann, 2017, by original designation.

†***Titanoscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Titanoscorpio douglassi* Kjellesvig-Waering, 1986, by monotypy.

†***Wattisonia*** Wills, 1960 [1 extinct species]. Type species: †*Wattisonia coseleyensis* Wills, 1960, by monotypy.

Family †**Proscorpiidae** Scudder, 1885
(6 extinct genera)

†***Archaeoctonus*** Pocock, 1911 (part) [1 extinct species]. Type species: †*Eoscorpius glaber* Peach, 1883 = †*Archaeoctonus glaber* (Peach, 1883), by original designation.

†***Hydroscorpius*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Hydroscorpius denisoni* Kjellesvig-Waering, 1986, by original designation.

†***Labriscorpio*** Leary, 1980 [1 extinct species]. Type species: †*Labriscorpio alliedensis* Leary, 1980, by original designation.

†***Proscorpius*** Whitfield, 1885b [1 extinct species]. Type species: †*Palaeophonus osborni* Whitfield, 1885a = †*Proscorpius osborni* (Whitfield, 1885a), by monotypy.

†*Archaeophonus* Kjellesvig-Waering, 1966a. Type species: †*Archaeophonus eurypteroides* Kjellesvig-Waering, 1966a = †*Proscorpius osborni* (Whitfield, 1885a), by original designation. Synonymized by Dunlop *et al.* (2008).

†*Stoermeroscorpio* Kjellesvig-Waering, 1986. Type species: †*Stoermeroscorpio delicatus* Kjellesvig-Waering, 1986 = †*Proscorpius osborni* (Whitfield, 1885a), by original designation. Synonymized by Dunlop *et al.* (2008).

†***Pseudoarchaeoctonus*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Pseudoarchaeoctonus denticulatus* Kjellesvig-Waering, 1986, by original designation.

†***Waeringoscorpio*** Størmer, 1970 [2 extinct species]. Type species: †*Waeringoscorpio hefteri* Størmer, 1970, by original designation.

Suborder †**Branchioscorpionina**
Kjellesvig-Waering, 1986
(4 extinct infraorders)

Infraorder †**Bilobosternina** Kjellesvig-Waering, 1986
(1 extinct superfamily)

Superfamily †**Branchioscorpionoidea**
Kjellesvig-Waering, 1986
(2 extinct families)

Family †**Branchioscorpionidae**
Kjellesvig-Waering, 1986
(1 extinct genus)

†***Branchioscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Branchioscorpio richardsoni* Kjellesvig-Waering, 1986, by original designation.

Family †**Dolichophonidae** Petrunkevitch, 1953
(1 extinct genus)

†***Dolichophonus*** Petrunkevitch, 1949 [1 extinct species]. Type species: †*Palaeophonus loudonensis* Laurie, 1899 = †*Dolichophonus loudonensis* (Laurie, 1899), by original designation.

Infraorder †**Holosternina** Kjellesvig-Waering, 1986
(6 extinct superfamilies)

Superfamily †**Acanthoscorpionoidea**
Kjellesvig-Waering, 1986
(2 extinct families)

Family †**Acanthoscorpionidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Acanthoscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Acanthoscorpio mucronatus* Kjellesvig-Waering, 1986, by original designation.

Family †**Stenoscorpionidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Stenoscorpio*** Kjellesvig-Waering, 1986 [2 extinct species]. Type species: †*Mesophonus gracilis* Wills, 1910 = †*Stenoscorpio gracilis* (Wills, 1910), by original designation.

Superfamily †**Eoctonoidea** Kjellesvig-Waering, 1986
(3 extinct families, 1 extinct genus *incertae sedis*)

Incertae sedis[1]

†***Aspiscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Aspiscorpio eagari* Kjellesvig-Waering, 1986, by original designation.

Family †**Anthracoscorpionidae** Frič, 1904
(1 extinct genus)

†***Anthracoscorpio*** Kušta, 1888 [2 extinct species]. Type species: †*Anthracoscorpio juvenis* Kušta, 1888, by monotypy.

Family †**Eoctonidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Eoctonus*** Petrunkevitch, 1913 (part) [1 extinct species]. Type species: †*Eoctonus miniatus* Petrunkevitch, 1913, by monotypy.

Family †**Garnettiidae** Dubinin, 1962
(1 extinct genus)

†***Garnettius*** Petrunkevitch, 1953 [1 extinct species]. Type species: †*Mazonia hungerfordi* Elias, 1936 = †*Garnettius hungerfordi* (Elias, 1936), by original designation.

Superfamily †**Gigantoscorpionoidea**
Kjellesvig-Waering, 1986
(1 extinct family)

Family †**Gigantoscorpionidae** Kjellesvig-Waering, 1986
(2 extinct genera)

†***Gigantoscorpio*** Størmer, 1963 [1 extinct species]. Type species: †*Gigantoscorpio willsi* Størmer, 1963, by original designation.

†***Petaloscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Petaloscorpio bureaui* Kjellesvig-Waering, 1986, by original designation.

Superfamily †**Mesophonoidea** Wills, 1910
(6 extinct families)

Family †**Centromachidae** Petrunkevitch, 1953
(5 extinct genera)

†***Anthracochaerilus*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Anthracochaerilus palustris* Kjellesvig-Waering, 1986, by original designation.

†***Centromachus*** Thorell & Lindström, 1885 (part) [1 extinct species]. Type species: †*Eoscorpius euglyptus* Peach, 1883 = †*Centromachus euglyptus* (Peach, 1883), by original designation.

†***Opsieobuthus*** Kjellesvig-Waering, 1986 [2 extinct species]. Type species: †*Eobuthus pottsvillensis* Moore, 1923 = †*Opsieobuthus potsvillensis* (Moore, 1923), by original designation.

†***Phoxiscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Phoxiscorpio peachi* Kjellesvig-Waering, 1986, by original designation.

†***Pulmonoscorpius*** Jeram, 1994b [1 extinct species]. Type species: †*Pulmonoscorpius kirktonensis* Jeram, 1994b, by original designation.

Family †**Gallioscorpionidae** Lourenço & Gall, 2004
(1 extinct genus)

†***Gallioscorpio*** Lourenço & Gall, 2004 [1 extinct species]. Type species: †*Gallioscorpio voltzi* Lourenço & Gall, 2004, by original designation.

Family †**Heloscorpionidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Heloscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Geralinura* (?) *sutcliffei* Woodward, 1907 = †*Heloscorpio sutcliffei* (Woodward, 1907), by original designation.

Family †**Mazoniidae** Petrunkevitch, 1913
(1 extinct genus)

†***Mazonia*** Meek & Worthen, 1868a [2 extinct species]. Type species: †*Mazonia woodiana* Meek & Worthen, 1868a, by monotypy.

Family †**Mesophonidae** Wills, 1910
(1 extinct genus)

†***Mesophonus*** Wills, 1910 (part) [2 extinct species]. Type species: †*Mesophonus perornatus* Wills, 1910, by subsequent designation (Wills, 1947a).

Family †**Willsiscorpionidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Willsiscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Mesophonus bromsgroviensis* Wills, 1910 = †*Willsiscorpio bromsgroviensis* (Wills, 1910), by original designation.

Superfamily †**Palaeoscorpioidea** Lehmann, 1944
(1 extinct family)

Family †**Palaeoscorpiidae** Lehmann, 1944
(1 extinct genus)

†***Palaeoscorpius*** Lehmann, 1944 [1 extinct species]. Type species: †*Palaeoscorpius devonicus* Lehmann, 1944, by original designation.

Superfamily †**Spongiophonoidea** Kjellesvig-Waering, 1986
(2 extinct families)

Family †**Praearcturidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Praearcturus*** Woodward, 1871 [1 extinct species]. Type species: †*Praearcturus gigas* Woodward, 1871, by monotypy.

Family †**Spongiophonidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Spongiophonus*** Wills, 1947b [1 extinct species]. Type species: †*Spongiophonus pustulosus* Wills, 1947b, by original designation.

†*Spongiotarsus* Petrunkevitch, 1955 [*nomen nudum*, *lapsus calami*]. [†*Spongiotarsus* Petrunkevitch, 1955 is a *lapsus calami*; it is not available and does not enter synonymy or homonymy (Fet, 2000d).]

Infraorder †**Lobosternina** Pocock, 1911
(4 extinct superfamilies, 1 extinct family *incertae sedis*)

Incertae sedis

Family †**Waterstoniidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Waterstonia*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Waterstonia airdriensis* Kjellesvig-Waering, 1986, by original designation.

Superfamily †**Isobuthoidea** Petrunkevitch, 1913
(5 extinct families)

Family †**Eobuthidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Eobuthus*** Frič, 1904 [3 extinct species]. Type species: †*Eobuthus rakovnicensis* Frič, 1904, by monotypy.

Family †**Eoscorpiidae** Scudder, 1884
(3 extinct genera)

†***Eoscorpius*** Meek & Worthen, 1868b [8 extinct species]. Type species: †*Eoscorpius carbonarius* Meek & Worthen, 1868b, by monotypy.

†*Trigonoscorpio* Petrunkevitch, 1913. Type species: †*Trigonoscorpio americanus* Petrunkevitch, 1913 = †*Eoscorpius carbonarius* Meek & Worthen, 1868b, by monotypy. Synonymized by Kjellesvig-Waering (1986).

†*Typhlopisthacanthus* Petrunkevitch, 1949. Type species: †*Palaeopisthacanthus mazonensis* Petrunkevitch, 1913 = †*Eoscorpius carbonarius* Meek & Worthen, 1868b, by monotypy. Synonymized by Kjellesvig-Waering (1986).

†*Typhloscorpius* Petrunkevitch, 1949. Type species: †*Typhloscorpius distinctus* Petrunkevitch, 1949 = †*Eoscorpius distinctus* (Petrunkevitch, 1949), by original designation. Synonymized by Kjellesvig-Waering (1986).

†*Lichnophthalmus* Petrunkevitch, 1949. Type species: †*Lichnophthalmus pulcher* Petrunkevitch, 1949 = †*Eoscorpius pulcher* (Petrunkevitch, 1949), by original designation. Synonymized by Kjellesvig-Waering (1986).

†*Alloscorpius* Petrunkevitch, 1949. Type species: †*Eoscorpius granulosus* Petrunkevitch, 1913 (part) = †*Eoscorpius carbonarius* Meek & Worthen, 1868b, by original designation. Synonymized by Kjellesvig-Waering (1986).

†*Europhthalmus* Petrunkevitch, 1949. Type species: †*Europhthalmus longimanus* Petrunkevitch, 1949 = †*Eoscorpius pulcher* (Petrunkevitch, 1949), by original designation. Synonymized by Kjellesvig-Waering (1986).

†***Eskiscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Eskiscorpio parvus* Kjellesvig-Waering, 1986, by original designation.

†***Trachyscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Trachyscorpio squarrosus* Kjellesvig-Waering, 1986, by original designation.

Family †**Isobuthidae** Petrunkevitch, 1913
(4 extinct genera)

†***Boreoscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Boreoscorpio copelandi* Kjellesvig-Waering, 1986, by original designation.

†***Bromsgroviscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Bromsgroviscorpio willsi* Kjellesvig-Waering, 1986, by original designation.

†***Feistmantelia*** Frič, 1904 [1 extinct species]. Type species: †*Feistmantelia ornata* Frič, 1904, by monotypy.

†***Isobuthus*** Frič, 1904 [2 extinct species]. Type species: †*Cyclophthalmus kralupensis* Thorell & Lindström, 1885 = †*Isobuthus kralupensis* (Thorell & Lindström, 1885), by indication. [A description of †*Isobuthus kralupensis* (Thorell & Lindström, 1885) immediately followed the description of †*Isobuthus* Frič, 1904, hence Fet (2000d) considered this a type species by indication.]

Family †**Kronoscorpionidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Kronoscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Eoscorpius danielsi* Petrunkevitch, 1913 = †*Kronoscorpio danielsi* (Petrunkevitch, 1913), by original designation.

Family †**Pareobuthidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Pareobuthus*** Wills, 1959 [1 extinct species]. Type species: †*Pareobuthus salopiensis* Wills, 1959, by original designation.

Superfamily †**Loboarchaeoctonoidea**
Kjellesvig-Waering, 1986
(1 extinct family)

Family †**Loboarchaeoctonidae**
Kjellesvig-Waering, 1986
(1 extinct genus)

†***Loboarchaeoctonus*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Loboarchaeoctonus squamosus* Kjellesvig-Waering, 1986, by original designation.

Superfamily †**Palaeophonoidea**
Thorell & Lindström, 1885
(1 extinct family)

Family †**Palaeophonidae** Thorell & Lindström, 1885
(1 extinct genus)

†***Palaeophonus*** Thorell & Lindström, 1884b, as *Palaeophoneus* Thorell & Lindström, 1884a [2 extinct species, 2 *nomina dubia*]. Type species: †*Palaeophoneus nuncius* Thorell & Lindström, 1884a = †*Palaeophonus nuncius* Thorell & Lindström, 1884b, by monotypy. [Thorell & Lindström (1884b) corrected the original spelling of Thorell & Lindström (1884a) to †*Palaeophonus*. The correct spelling was further discussed by Petrunkevitch (1955, 1956) and validated by the ICZN (1957b).]

†*Allopalaeophonus* Kjellesvig-Waering, 1986. Type species: †*Palaeophonus caledonicus* Hunter, 1886, by original designation. Synonymized by Dunlop & Garwood (2023).

Superfamily †**Paraisobuthoidea**
Kjellesvig-Waering, 1986
(3 extinct families)

Family †**Paraisobuthidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Paraisobuthus*** Kjellesvig-Waering, 1986 [4 extinct species]. Type species: †*Paraisobuthus prantli* Kjellesvig-Waering, 1986, by original designation.

Family †**Scoloposcorpionidae** Kjellesvig-Waering, 1986
(2 extinct genera)

†***Benniescorpio*** Wills, 1960 [1 extinct species]. Type species: †*Eoscorpius tuberculatus* Peach, 1883 = †*Benniescorpio tuberculatus* (Peach, 1883), by original designation.

†***Scoloposcorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Scoloposcorpio cramondensis* Kjellesvig-Waering, 1986, by original designation.

Family †**Telmatoscorpionidae**
Kjellesvig-Waering, 1986
(1 extinct genus)

†***Telmatoscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Telmatoscorpio brevipectus* Kjellesvig-Waering, 1986, by original designation.

Infraorder †**Meristosternina**
Kjellesvig-Waering, 1986
(2 extinct superfamilies)

Superfamily †**Cyclophthalmoidea**
Thorell & Lindström, 1885
(2 extinct families)

Family †**Cyclophthalmidae** Thorell & Lindström, 1885
(1 extinct genus)

†***Cyclophthalmus*** Corda, 1835 [3 extinct species]. Type species: †*Cyclophthalmus senior* Corda, 1835, by monotypy. [In Corda's (1835) discussion of †*Cyclophthalmus* Corda, 1835, the first fossil genus of scorpions to be described, all scorpions were divided into two groups, "Opisthophthalmi", which included all scorpion genera known by 1834 (*Androctonus* Ehrenberg, in Hemprich & Ehrenberg, 1828; *Buthus* Leach, 1815; *Centrurus* Ehrenberg, in Hemprich & Ehrenberg, 1829; and *Scorpio* Linnaeus, 1758), and "Prosophthalmi", which included †*Cyclophthalmus*. These higher taxa, which are not based on available generic names, are not available family-group names and were not used subsequently (Fet, 2000d).]

Family †**Microlabiidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Microlabis*** Corda, 1839 [1 extinct species]. Type species: †*Microlabis sternbergii* Corda, 1839, by monotypy.

Superfamily †**Palaeobuthoidea**
Kjellesvig-Waering, 1986
(1 extinct family)

Family †**Palaeobuthidae** Kjellesvig-Waering, 1986
(1 extinct genus)

†***Palaeobuthus*** Petrunkevitch, 1913 [1 extinct species]. Type species: †*Palaeobuthus distinctus* Petrunkevitch, 1913, by monotypy.

†*Mazoniscorpio* Wills, 1960. Type species: †*Mazoniscorpio mazonensis* Wills, 1960 = †*Palaeobuthus distinctus* Petrunkevitch, 1913, by original designation. Synonymized by Kjellesvig-Waering (1986).

Suborder **Neoscorpionina** Thorell & Lindström, 1885
(1 extant infraorder, 1 extinct genus *incertae sedis*)

Incertae sedis[2]

†***Gymnoscorpius*** Jeram, 1994a [1 extinct species]. Type species: †*Gymnoscorpius mutillidigitus* Jeram, 1994a, by monotypy.

Infraorder **Orthosternina** Pocock, 1911
(2 extant parvorders, 1 extinct family
and 3 extinct genera *incertae sedis*)

Incertae sedis

†***Compsoscorpius*** Petrunkevitch, 1949 [3 extinct species].[3] Type species: *Compsoscorpius elegans* Petrunkevitch, 1949, by monotypy.

†*Lichnoscorpius* Petrunkevitch, 1949. Type species: †*Lichnoscorpius minutus* Petrunkevitch, 1949 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†*Buthiscorpius* Petrunkevitch, 1953 (part). Type species: †*Anthracoscorpio buthiformis* Pocock, 1911 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†*Allobuthus* Kjellesvig-Waering, 1986. Type species: †*Allobuthus macrostethus* Kjellesvig-Waering, 1986 = †*Compsoscorpius buthiformis* (Pocock, 1911), by

original designation. Synonymized by Legg *et al.* (2012).

†*Allobuthiscorpius* Kjellesvig-Waering, 1986. Type species: †*Buthiscorpius major* Wills, 1960 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†*Coseleyscorpio* Kjellesvig-Waering, 1986. Type species: †*Coseleyscorpio lanceolatus* Kjellesvig-Waering, 1986 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†*Leioscorpio* Kjellesvig-Waering, 1986. Type species: †*Leioscorpio pseudobuthiformis* Kjellesvig-Waering, 1986 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†*Pseudobuthiscorpius* Kjellesvig-Waering, 1986. Type species: †*Pseudobuthiscorpius labiosus* Kjellesvig-Waering, 1986 = †*Compsoscorpius buthiformis* (Pocock, 1911), by original designation. Synonymized by Legg *et al.* (2012).

†***Corniops*** Jeram, 1994a [1 extinct species]. Type species: †*Corniops mapesii* Jeram, 1994a, by original designation.

†***Suraju*** Martine, Ricardi-Branco, Beloto & Jurigan, 2020 [1 extinct species]. Type species: †*Suraju itayma* Martine, Ricardi-Branco, Beloto & Jurigan, 2020, by original designation.

Family †**Palaeopisthacanthidae** Kjellesvig-Waering, 1986
(2 extinct genera)

†***Cryptoscorpius*** Jeram, 1994a [1 extinct species]. Type species: *Cryptoscorpius americanus* Jeram, 1994a, by original designation.

†***Palaeopisthacanthus*** Petrunkevitch, 1913 [2 extinct species]. Type species: *Palaeopisthacanthus schucherti* Petrunkevitch, 1913, by original designation.

Parvorder **Buthida** Soleglad & Fet, 2003
(3 extant superfamilies, 1 extinct superfamily, 1 extinct family and 1 extinct genus *incertae sedis*)

Incertae sedis

†***Jeholia*** Xuan, Cai, Huang & Huang, 2025a [1 extinct species]. Type species: †*Jeholia longchengi* Xuan, Cai, Huang & Huang, 2025a, by monotypy.

Family †**Palaeotrilineatidae** Lourenço, 2012a
(1 extinct genus)

†***Palaeotrilineatus*** Lourenço, 2012a [1 extinct species]. Type species: †*Palaeotrilineatus ellenbergeri* Lourenço, 2012a, by original designation.

Superfamily **Buthoidea** C.L. Koch, 1837a
(1 extant family, 3 extinct families)

Family †**Archaeobuthidae** Lourenço, 2001a
(1 extinct genus)

†***Archaeobuthus*** Lourenço, 2001a [1 extinct species]. Type species: †*Archeobuthus estephani* Lourenço, 2001a, by original designation.

Family **Buthidae** C.L. Koch, 1837a
(4 extant subfamilies, 1 extinct genus *incertae sedis*, 1 *nomen dubium*)

Incertae sedis

†***Uintascorpio*** Perry, 1995 [1 extinct species]. Type species: †*Uintascorpio halandrasorum* Perry, 1995, as †*Uintascorpio halandrasi* Perry, 1995 (see Santiago-Blay *et al.*, 2004b), by original designation.

Nomen dubium

Hoplocystis Karsch, 1884 [1 extinct species]. Type species: *Hoplocystis scintilla* Karsch, 1884 [*nomen dubium*], by monotypy. [According to Fet & Lowe (2000), this genus was assigned to "Iurini" due to its pentagonal sternum but other diagnostic characters (slender body and pedipalps, cheliceral dentition, and the presence of a subaculear tubercle) suggest placement in Buthidae C.L. Koch, 1837a. Karsch (1884) suggested that it is close to *Charmus* Karsch, 1879b and *Scorpiops* Peters, 1861b. The validity of the genus, which was never revised or synonymized, cannot be determined from the very brief description without illustrations. The type, formerly in the Übersee-Museum, Bremen, Germany, is presumably lost (Fet & Lowe, 2000). Even if rediscovered and demonstrated to be a senior synonym, use of this generic name is inadvisable because it was not used since its description (Fet & Lowe, 2000). It is hereby declared a *nomen dubium*.]

Subfamily **Buthinae** C.L. Koch, 1837a[4]
(35 extant genera)

Aegaeobuthus Kovařík, 2019a [5 extant species]. Type species: *Buthus gibbosus* (Brullé, 1832) = *Aegaeobuthus gibbosus* (Brullé, 1832), by original designation. [One subspecies, which appears to be

diagnosable from the nominotypical form, is elevated to the rank of species (Appendix 1).]

Androctonus Ehrenberg, in Hemprich & Ehrenberg, 1828 (part) [58 extant species]. Type species: *Scorpio australis* Linnaeus, 1758 = *Androctonus australis* (Linnaeus, 1758), by subsequent designation (Thorell, 1876a). [Two subspecies, diagnosable from the nominotypical forms, are elevated to the rank of species (Appendix 1). One of those, *Androctonus longecarinatus* (Caporiacco, 1932a), **stat. nov.**, is not a *nomen dubium*: based on examination of topotypes (AMNH), it is a senior synonym of *Androctonus tenuissimus* Teruel, Kovařík & Turiel, 2013.]

Androctonus (*Prionurus*) Ehrenberg, in Hemprich & Ehrenberg, 1828 (part). Type species: *Androctonus* (*Prionurus*) *funestus* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Androctonus australis* (Linnaeus, 1758), by subsequent designation (Lankester, 1885). [Junior homonym of both *Prionurus* Lacépède, 1804 (Pisces) and *Prionurus* Rafinesque-Schmaltz, 1815 (Reptilia). Waite (1900), believing that *Prionurus* Lacépède, 1804, was published in 1830, considered it a junior homonym of *Prionurus* Ehrenberg, in Hemprich & Ehrenberg, 1828, and introduced *Acanthocaulus* Waite, 1900, to replace *Prionurus* Lacépède, 1804. According to Fet & Lowe (2000), however, the name *Prionurus* Lacépède, 1804 is available, and *Prionurus* Rafinesque-Schmaltz, 1815, and *Prionurus* Ehrenberg, in Hemprich & Ehrenberg, 1828, are its junior homonyms.] Synonymized by Vachon (1948); also see Vachon (1952) and Francke (1985).

Puchale Francke, 1985 [*nomen nudum* (Acosta & Fet, 2005)]. [Francke (1985) introduced this replacement name for *Prionurus* Ehrenberg, in Hemprich & Ehrenberg, 1828. However, as pointed out by Acosta & Fet (2005), the junior synonym (*Prionurus*) was not revalidated. Articles 11.5 and 11.6 of the ICZN (1985, 1999) indicate that to be available, a name must be treated as valid when first proposed. Moreover, Article 11.6.3 states that "a name first published after 1960 and treated as a junior synonym on that occasion cannot be made available from that act". As the long-accepted synonymy was never removed, the name *Puchale* Francke, 1985, never became available (Acosta & Fet, 2005).]

Polisius Fet, Capes & Sissom, 2001. Type species: *Polisius persicus* Fet, Capes & Sissom, 2001 = *Androctonus persicus* (Fet, Capes & Sissom, 2001), by original designation. [The holotype (USNM) of the type species of this monotypic genus was examined. Although it contained a label with a determination by S.A. Stockwell (1986) which states '*Psammobuthus*?', the holotype was revealed to be an immature specimen of *Androctonus* Ehrenberg, in Hemprich & Ehrenberg, 1828. The diagnosis and description fail to offer any characters by means of which this putative genus can be separated from the latter, with which it was not explicitly compared. However, several characters described and illustrated (Fet *et al.*, 2001: 183–188, Figures 1–9) are consistent with *Androctonus*, notably the carapace morphology, including the carination and wide distance between the median ocelli, the shape and carination of the metasomal segments and telson, and the presence of macrosetal combs on the leg basitarsi. Consequently, *Polisius* Fet, Capes & Sissom, 2001 = *Androctonus* Ehrenberg, in Hemprich & Ehrenberg, 1828, **syn. nov.**, resulting in *Androctonus persicus* (Fet, Capes & Sissom, 2001), **comb. nov.** This species may prove to be a senior synonym of one or more species of *Androctonus* described from Iran in recent years.]

Anomalobuthus Kraepelin, 1900 [6 extant species]. Type species: *Anomalobuthus rickmersi* Kraepelin, 1900, by monotypy.

Psammobuthus Birula, 1911. Type species: *Psammobuthus zarudnyi* Birula, 1911 = *Anomalobuthus zarudnyi* (Birula, 1911), by original designation. Synonymized by Teruel *et al.* (2018). [The type specimens are apparently lost (B. Korotyaev, in litt.). Material collected by the author from the vicinity of type locality (AMNH) matches Birula's (1911) description, confirming that *Psammobuthus zarudnyi* Birula, 1911, is a distinct species, congeneric with *Anomalobuthus* Kraepelin, 1900, consistent with the close relationship between these taxa mentioned by Birula (1911), and the generic synonymy of Teruel *et al.* (2018).]

Apistobuthus Finnegan, 1932 [2 extant species]. Type species: *Apistobuthus pterygocercus* Finnegan, 1932, by original designation.

Birulatus Vachon, 1974 [4 extant species]. Type species: *Birulatus haasi* Vachon, 1974, by original designation.

Buthacus Birula, 1908, as *Buthus* (*Buthacus*) Birula, 1908 [35 extant species, 1 *nomen dubium*]. Type species: *Androctonus* (*Leiurus*) *leptochelys* Ehrenberg, in Hemprich & Ehrenberg, 1829 = *Buthus* (*Buthacus*) *leptochelys* (Ehrenberg, in Hemprich & Ehrenberg, 1829) = *Buthacus leptochelys* (Ehrenberg, in Hemprich & Ehrenberg, 1829), by original designation.

Butheolus Simon, 1882a [6 extant species]. Type species: *Butheolus thalassinus* Simon, 1882a, by subsequent designation (Simon, 1910). [Simon's (1882a) original paper includes descriptions of both *B. thalassinus* and *Butheolus aristidis* Simon, 1882a = *Orthochirus aristidis* (Simon, 1882a) without specifying the type species (Fet & Lowe, 2000).]

Buthiscus Birula, 1905 [2 extant species].Type species: *Buthiscus bicalcaratus* Birula, 1905, by original designation. *Trichobuthus* Vachon, 1941. Type species: *Trichobuthus guebleri* Vachon, 1941 = *Buthiscus bicalcaratus* Birula, 1905, by original designation. Synonymized by Vachon (1943).

Buthus Leach, 1815 [72 extant species]. Type species: *Scorpio occitanus* Amoreux, 1789 = *Buthus occitanus* (Amoreux, 1789), by original designation.

Cicileus Vachon, 1948 [5 extant species]. Type species: *Buthacus exilis* Pallary, 1928 = *Cicileus exilis* (Pallary, 1928), by original designation.

Compsobuthus Vachon, 1949a [59 extant species, 1 *nomen dubium*]. Type species: *Buthus acutecarinatus* Simon, 1882a = *Compsobuthus acutecarinatus* (Simon, 1882a), by original designation. [One species is hereby synonymized (Appendix 1) based on photographs presented by Amir (1997): *Compsobuthus humaae* Amir, Kamaluddin & Khan, 2005b = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**]

Xomyobuthus Vachon, 1948 [*nomen nudum*]. [Incorrect transliteration of Greek comyo ("compso-") (Vachon, 1949a).]

Darchenia Vachon, 1977. Type species: *Darchenia bernardettae* Vachon, 1977 = *Compsobuthus bernardettae* (Vachon, 1977), **comb. nov.** [*nomen dubium*], by original designation. [The type locality of this monotypic genus was allegedly on the Yucátan Peninsula (Mexico). According to Lourenço (1995a), however, the holotype probably originated from central West Africa (Cameroon or Gabon) and the locality data represents a labelling error. Based on examination of the holotype (MNHN RS 7811), Lourenço's (1995a) assessment was correct; the pedipalp trichobothrial pattern is consistent with Buthinae C.L. Koch, 1837a. Furthermore, the holotype, a subadult male, appears to be congeneric with *Compsobuthus* Vachon, 1949a, based on the fused posterior carapacial carinae and tergal carinae projecting beyond the posterior tergite margins. Therefore, *Darchenia* Vachon, 1977 = *Compsobuthus* Vachon, 1949a, **syn. nov.**, resulting in *Compsobuthus bernardettae* (Vachon, 1977), **comb. nov.**, which is regarded as a *nomen dubium*.]

Vachonus Tikader & Bastawade, 1983. Type species: *Vachonus rajasthanicus* Tikader & Bastawade, 1983 = *Compsobuthus rajasthanicus* (Tikader & Bastawade, 1983), **comb. nov.**, by original designation. [Fet & Lowe (2000) doubted the validity of this genus. One of its two species was subsequently transferred to *Compsobuthus* Vachon, 1949a, by Navidpour *et al.* (2011). Lourenço (2015c) described a second species of the genus and presented arguments supporting its validity. The putative diagnostic characters provided by Tikader & Bastawade (1983: 38) to separate the genus from *Compsobuthus* amount to minor differences in the carinae of the carapace and metasomal segments: central median carinae of carapace joining with posterior median carinae but neither straight nor spiniform posteriorly; ventrolateral carinae of metasomal segment V unevenly granular (increasing in size posteriorly). However, fusion of the central median and posterior median carinae of the carapace into a continuous linear series of granules reaching the posterior margin is considered a diagnostic character of *Compsobuthus* (Vachon, 1949a; Navidpour *et al.*, 2011). Additionally, Tikader & Bastawade's (1983: 177) Figure 484 of the type species, *Vachonus rajasthanicus* Tikader & Bastawade, 1983, clearly illustrates tergal carinae projecting beyond the posterior tergite margin, another diagnostic character of *Compsobuthus*. In the absence of evidence to the contrary, the type species is considered congeneric with *Compsobuthus*, hence *Vachonus* Tikader & Bastawade, 1983 = *Compsobuthus* Vachon, 1949a, **syn. nov.**, resulting in two new combinations (Appendix 1). Additionally, two species of *Vachonus* described by Amir & Kamaluddin (2009) are hereby synonymized with common Pakistani taxa (Appendix 1) based on photographs presented by Amir (1997).]

Saharobuthus Lourenço & Duhem, 2009. Type species: *Saharobuthus elegans* Lourenço & Duhem, 2009 = *Compsobuthus elegans* (Lourenço & Duhem, 2009), **comb. nov.**, by original designation. [It is evident from the diagnosis, description, illustrations and images of the holotype (MNHN RS 8844) posted on the MNHN website, which indicate fused posterior carapacial carinae and tergal carinae projecting beyond the posterior tergite margins, among other characters, that this monotypic genus is congeneric with *Compsobuthus* Vachon, 1949a, a genus which occurs in the geographical vicinity. The putative diagnostic characters concerning the shape of metasomal segment V and telson, *i.e.*, "ventromedian carinae" [sic] strongly developed, with lobate denticles, anal arc composed of 10 ventral teeth and four uniform lateral lobes, and telson vesicle pear-like in shape, with aculeus much longer than vesicle (Lourenço & Duhem, 2009: 39), do not permit the separation of *Saharobuthus* Lourenço & Duhem, 2009, from the latter. Consequently, *Saharobuthus* Lourenço & Duhem, 2009 = *Compsobuthus* Vachon, 1949a, **syn. nov.**, resulting in *Compsobuthus elegans* (Lourenço & Duhem, 2009), **comb. nov.**]

Congobuthus Lourenço, 1999d [1 extant species]. Type species: *Congobuthus fagei* Lourenço, 1999d, by original designation. [Based on examination of the holotype (MNHN RS 2669) and paratypes (MNHN RS 8664/8665), this monotypic genus may be a valid genus. A note with the type specimens, written by K. Kraepelin, reads: '*Buthus* aff. *atlantis* vielliecht sp.

nov.', whereas another note, by M. Vachon, reads: 'Faux *Buthus* du Congo; 4 granules distaux d.m. [doigt mobile]; carines ventrales du dernier anneau'. Whereas the types superficially resemble *Buthus* Leach, 1815, they share several characters with *Hottentotta* Birula, 1908: the carapacial carinae are incompletely fused posteriorly (unlike *Compsobuthus* Vachon, 1949a) and the leg basitarsi and telotarsi bear pro- and retroventral rows of spiniform setae. Unlike *Hottentotta*, however, legs I and II possess weakly developed setal combs retrolaterally (absent in *Hottentotta*) and the metasoma resembles *Buthus*: the ventrosubmedian carinae and, to a lesser extent, the ventrolateral carinae of metasomal segments I–III comprise enlarged granules terminating in lobate denticles posteriorly (less developed on segment I) and the ventrolateral carinae of metasomal segment V possess pronounced lobate granules posteriorly and subposteriorly; the ventrosubmedian and ventrolateral carinae are also weaker on segment IV than on segments I–III. The robust habitus, metasomal carination, and presence of setal combs on the legs suggest that *Congobuthus fagei* Lourenço, 1999d, is fossorial and pelophilous (consistent with the observation of fine whitish soil coating the metasoma of the paratype female), like *Buthus* and unlike *Hottentotta*. Lourenço's (1999d) description notes that the ventromedian carina of metasomal segment V is not bifurcate posteriorly (unlike *Buthus*) and the terminal denticle of the pedipalp chela movable finger is without accessory denticles (three accessory denticles are present in *Buthus*), a comment which appears to contradict M. Vachon's note. The presence of four denticles (*i.e.*, a terminal denticle with three accessory denticles) is also consistent with *Buthus*; *Hottentotta* possesses four accessory denticles. The type locality is 'Congo Fr. Meriod., Sondima Niadi'; apparently Niadi [Niari, 03°33'S 12°20'E] in the Niari Department of the Republic of Congo.]

Hemibuthus Pocock, 1900a [5 extant species]. Type species: *Archisometrus crassimanus* Pocock, 1897a = *Hemibuthus crassimanus* (Pocock, 1897a), by monotypy. [The following synonym is based on photographs presented by Amir (1997): *Hemibuthus umarii* Amir, Kamaluddin & Khan, 2004b = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**]

Razianus Farzanpay, 1987. Type species: *Hemibuthus zarudnyi* Birula, 1903a, by original designation. [The type species of this genus was originally assigned to *Hemibuthus* Pocock, 1900a, by Birula (1903a). It is evidently congeneric with the latter based on comparison of the types of *Hemibuthus crassimanus* (Pocock, 1897a) (BMNH 1896.9.26.5-6) and *Neohemibuthus kinzelbachi* Lourenço, 1996a (MNHN), the latter of which was synonymized with *Razianus zarudnyi* (Birula, 1903a), the type species of *Razianus* Farzanpay, 1987, by Fet (1997b). Therefore, *Razianus* Farzanpay, 1987 = *Hemibuthus* Pocock, 1900a, **syn. nov.**, resulting in three new combinations (Appendix 1).]

Neohemibuthus Lourenço, 1996a. Type species: *Neohemibuthus kinzelbachi* Lourenço, 1996a = *Hemibuthus zarudnyi* Birula, 1903a, by original designation. Synonymized by Fet & Lowe (2000). [After Lourenço (1996a) erected *Neohemibuthus*, Fet (1997b) demonstrated that its type species is conspecific with *Hemibuthus zarudnyi* Birula, 1903a. Both Lourenço (1996a) and Fet (1997b) were unaware, however, that Farzanpay (1987) had already published (in Farsi with a Latin index) a description of *Razianus* Farzanpay, 1987, with *Razianus zarudnyi* (Birula, 1903a) as type species. As *Razianus* is a junior synonym of *Hemibuthus* Pocock, 1900a, *Neohemibuthus* Lourenço, 1996a = *Hemibuthus* Pocock, 1900a, **syn. nov.**]

Hottentotta Birula, 1908, as *Buthus* (*Hottentotta*) Birula, 1908 [61 extant species, 1 *nomen dubium*]. Type species: *Scorpio hottentotta* Fabricius, 1787 = *Hottentotta hottentotta* (Fabricius, 1787), by original designation. [The following synonym is based on photographs presented by Amir (1997): *Buthotus asimii* Amir, Kamaluddin & Khan, 2004a = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.** Additionally, one subspecies, which is diagnosable from the nominotypical form, is elevated to the rank of species, whereas another, which is not, is synonymized (Appendix 1).]

Dasyscorpio Pallary, 1938. Type species: *Buthus* (*Hottentotta*) *lutaudi* Pallary, 1924 = *Hottentotta franzwerneri* (Birula, 1914), by original designation. [Vachon (1949b) synonymized *Dasyscorpio* Pallary, 1938, with *Buthotus* Vachon, 1949b, hence *Dasyscorpio* Pallary, 1938 = *Hottentotta* Birula, 1908, **syn. nov.**]

Stictobuthus Vachon, 1948 [*nomen nudum*].

Buthotus Vachon, 1949b. Type species: *Buthus judaicus* Simon, 1872a = *Hottentotta judaicus* (Simon, 1872a), by original designation. Synonymized by Francke (1985).

Hottentotta (*Balfourianus*) Vachon, 1979, as *Buthotus* (*Balfourianus*) Vachon, 1979. Type species: *Buthus socotrensis* Pocock, 1889a = *Buthotus* (*Balfourianus*) *socotrensis* (Pocock, 1889a) = *Hottentotta socotrensis* (Pocock, 1889a), by original designation. Synonymized by Kovařík (2007). [Francke (1985) presented the new combination, *Hottentotta* (*Balfourianus*) Vachon, 1979.]

Hottentotta (*Deccanobuthus*) Lourenço, 2000a. Type species: *Hottentotta* (*Deccanobuthus*) *geffardi* Lourenço, 2000a = *Hottentotta pachyurus* (Pocock,

1897a), by original designation. Synonymized by Kovařík (2007).

Iranobuthus Kovařík, 1997b [1 extant species]. Type species: *Iranobuthus krali* Kovařík, 1997b.

Kraepelinia Vachon, 1974 [1 extant species]. Type species: *Buthus palpator* Birula, 1903a = *Kraepelinia palpator* (Birula, 1903a), by original designation. [The validity of this monotypic genus, which appears to be closely related to *Mesobuthus* Vachon, 1950a, remains to be rigorously tested.]

Pantobuthus Lourenço & Duhem, 2009. Type species: *Pantobuthus complicatus* Lourenço & Duhem, 2009 = *Kraepelinia palpator* (Birula, 1903a), **syn. nov.**, by original designation. [Based on the diagnosis, description and illustrations of the holotype, this monotypic genus is evidently conspecific with *Kraepelinia palpator* (Birula, 1903a), with which it shares globose pedipalp chelae, robust metasoma with spiniform granules on the ventrosubmedian carinae of segments II–IV, and a globose telson with a short aculeus, among other characters; for comparison, see Barahoei (2024). Furthermore, the Afghan type locality of *Pantobuthus complicatus* Lourenço & Duhem, 2009, *i.e.*, Vic Shiberghan, Dasht-e Leili, illustrated by Lourenço (2005a: 113, Fig. 9) for *Afghanobuthus naumanni* Lourenço, 2005a, which shares the same type locality, is close to a known locality of *K. palpator* in the extreme south of Turkmenistan, near the Afghan border (Fet, 1987a; Fet & Lowe, 2000), *i.e.*, Badkhyz (A.V. Gromov, pers. comm.). Therefore, *Pantobuthus complicatus* Lourenço & Duhem, 2009 = *Kraepelinia palpator* (Birula, 1903a), **syn. nov.**, and *Pantobuthus* Lourenço & Duhem, 2009 = *Kraepelinia* Vachon, 1974, **syn. nov.**]

Lanzatus Kovařík, 2001b [4 extant species]. Type species: *Lanzatus somalicus* Kovařík, 2001b, by original designation.

Sabinebuthus Lourenço, 2001b. Type species: *Sabinebuthus elegans* Lourenço, 2001b = *Lanzatus somalicus* Kovařík, 2001b, by original designation. [The genera *Lanzatus* Kovařík, 2001b, and *Sabinebuthus* Lourenço, 2001b, were described in the same month. Lourenço (2001c, 2016a) considered *Lanzatus somalicus* Kovařík, 2001b, a junior synonym of *Sabinebuthus elegans* Lourenço, 2001b, and therefore, *Lanzatus* a junior synonym of *Sabinebuthus*. Kovařík *et al.* (2016d) and Kovařík (2018b) agreed that the two species are congeneric but contended that *Lanzatus* had priority of publication. Francke (2019) followed Kovařík *et al.* (2016d) and Kovařík (2018b) in listing *Sabinebuthus* as a junior synonym of *Lanzatus*. That decision is formalized as follows: *Sabinebuthus* Lourenço, 2001b = *Lanzatus* Kovařík, 2001b, **syn. nov.** While it is possible that *S. elegans* is a distinct species, discrepancies in the original description noted by Kovařík *et al.* (2016d), taken together with the relative geographical proximity of their respective type localities, suggest it is probably conspecific with *L. somalicus*. Therefore, *Sabinebuthus elegans* Lourenço, 2001b = *Lanzatus somalicus* Kovařík, 2001b, **syn. nov.**]

Leiurus Ehrenberg, in Hemprich & Ehrenberg, 1828, as *Androctonus* (*Leiurus*) Ehrenberg, in Hemprich & Ehrenberg, 1828 (part) [29 extant species]. Type species: *Androctonus* (*Leiurus*) *quinquestriatus* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Leiurus quinquestriatus* (Ehrenberg, in Hemprich & Ehrenberg, 1828), by subsequent designation (Vachon, 1949a).

Cicileiurus Teruel, 2007. Type species: *Cicileiurus monticola* Teruel, 2007 = *Leiurus monticola* (Teruel, 2007), **comb. nov.**, by original designation. [This monotypic genus was based on a single specimen with questionable locality data. Despite several attempts, no additional specimens have been collected in the two decades since its description. Based on the diagnosis and description, the type species is evidently congeneric with *Leiurus* Ehrenberg, in Hemprich & Ehrenberg, 1828, with which it shares the following diagnostic characters, in addition to similar habitus: carapace centrolateral and posteromedian carinae fused, with lyriform configuration; mesosomal tergites I–VII each with at least five well developed longitudinal carinae; pedipalp chela fingers with linear margins (basal lobe and notch absent), each with 12 or 13 primary denticle rows flanked by pro- and retrolateral accessory denticles; movable finger with four granules proximal to terminal denticle. The putative diagnostic characters cited to justify this genus (Teruel, 2007: 144), *i.e.*, single ventromedian row of "spiniform setae" (actually, spinules) on the leg telotarsi, and the raised anterior half of the carapace (not discernable from Figure 1c) do not permit its separation from *Leiurus*. No evidence was presented to support the claim that the holotype is adult hence its relatively smaller size cannot be considered diagnostic, either. Therefore, *Cicileiurus* Teruel, 2007 = *Leiurus* Ehrenberg, in Hemprich & Ehrenberg, 1828, **syn. nov.**, resulting in *Leiurus monticola* (Teruel, 2007), **comb. nov.** This species may prove to be a senior synonym of one or more species of *Leiurus* described from North Africa in recent years.]

Liobuthus Birula, 1898 [1 extant species]. Type species: *Liobuthus kessleri* Birula, 1898, by monotypy. [This monotypic, psammophilous genus was redescribed by Vachon (1958). It was considered a senior synonym of *Plesiobuthus* Pocock, 1900a, by some authors (Birula, 1904; Kraepelin, 1905; Werner, 1934; Francke, 1985; Sissom, 1990) whereas others upheld its validity (Kraepelin, 1913; Stahnke, 1972; Fet, 1989; Fet & Lowe, 2000; Capes & Fet,

2001). Comparison of nontype material (AMNH) of *Liobuthus kessleri* Birula, 1898, with the neotype (ZMH) of *Plesiobuthus paradoxus* Pocock, 1900a, confirmed that they are distinct genera.]

Lissothus Vachon, 1948 [4 extant species]. Type species: *Lissothus bernardi* Vachon, 1948, by original designation.

Mesobuthus Vachon, 1950a (part) [31 extant species]. Type species: *Androctonus eupeus* C.L. Koch, 1839a = *Mesobuthus eupeus* (C.L. Koch, 1839a), by original designation.

Microbuthus Kraepelin, 1898a [9 extant species]. Type species: *Microbuthus pusillus* Kraepelin, 1898a, by original designation.

Femtobuthus Lowe, 2010. Type species: *Femtobuthus shutuae* Lowe, 2010 = *Microbuthus shutuae* (Lowe, 2010), **comb. nov.**, by original designation. [Based on the diagnosis, examination of topotypes (AMNH), and the phylogenetic analyses of Kovařík & Lowe (2022) and Štundlová *et al.* (2022), the type species of this monotypic genus is congeneric with *Microbuthus* Kraepelin, 1898a, with which it shares the following characters, among others (Lowe, 2010: 17, 41): markedly trapezoidal carapace; relatively short, deep telson vesicle; tibial spurs on leg IV. Although distinguished from *Microbuthus* primarily by subtractive neobothriotaxy of the pedipalp femur (two dorsal, two internal trichobothria), this is evidently autapomorphic and therefore not phylogenetically informative. This character and others listed in Lowe's (2010: 41) Table 1 are appropriately recognized as diagnostic at the species level. In the view of the available evidence, *Femtobuthus* Lowe, 2010 = *Microbuthus* Kraepelin, 1898a, **syn. nov.**, resulting in *Microbuthus shutuae* (Lowe, 2010), **comb. nov.**]

Nanobuthus Pocock, 1895, **stat. rev.** [22 extant species]. Type species: *Nanobuthus andersoni* Pocock, 1895, by monotypy.

Neobuthus Hirst, 1911. Type species: *Neobuthus berberensis* Hirst, 1911 = *Nanobuthus berberensis* (Hirst, 1911), **comb. nov.**, by monotypy. [Confusion has beset the identity of *Butheolus* Simon, 1882a, *Nanobuthus* Pocock, 1895, and *Neobuthus* Hirst, 1911, for more than a century. Kraepelin (1903) synonymized *Butheolus ferrugineus* Kraepelin, 1898a, with *Nanobuthus andersoni* Pocock, 1895, whereas Simon (1910) remarked that *B. ferrugineus* appears to be very close to the latter. Later, Vachon (1975, 1980a) relegated *Nanobuthus* to a subgenus of *Butheolus*. Fet & Lowe (2000) retained *B. ferrugineus* in *Butheolus*, while recognizing *Nanobuthus* as a monotypic genus, restricted to the type species. Kovařík (2004b) followed Fet & Lowe (2000) in recognizing *B. ferrugineus*, and synonymized *Nanobuthus* with *Butheolus*, without examining the type material. Later, Kovařík & Lowe (2012) transferred *B. ferrugineus* to *Neobuthus*, creating *Neobuthus ferrugineus* (Kraepelin, 1898a). In a subsequent revision of *Neobuthus*, Kovařík *et al.* (2018c: 4) stated:

> One key character was the presence of a single enlarged denticle on the ventral aspect of the cheliceral fixed finger. We confirmed that [several species] comply with this character (Figs. 21, 118, 175, 257, and 393). In *N. ferrugineus* (Kraepelin, 1898), the denticle was smaller and difficult to visualize due to lack of darkening and concealment under microsetae (Fig. 210). However, UV microscopy of the profile of the ventral surface of the cheliceral fixed finger revealed a distinct tubercle (Fig. 212) that likely corresponds to a reduced ventral denticle. The difficulty of visualizing this under light microscopy explains why Kraepelin (1903) placed this species in *Nanobuthus* Pocock, 1895, which lacks ventral denticles as a diagnostic character (Pocock, 1895), and furthermore considered it a synonym of *N. andersoni* Pocock, 1895. Apparently, Prendini (2004, unpublished, cf. label in Figs. 182–183) concurred with this synonymy. We defer consideration of this issue until we can analyze the type or topotypes of *N. andersoni*, but if synonymy is upheld then *Neobuthus* would become a junior synonym of *Nanobuthus*.

Based on the author's comparison of the holotypes of *Nanobuthus andersoni* Pocock, 1895 (BMNH 1894.11.2.39), *Butheolus ferrugineus* Kraepelin, 1898a (ZMH) = *Neobuthus ferrugineus* (Kraepelin, 1898a), and *Neobuthus berberensis* Hirst, 1911 (BMNH 1906.3.25.125), the original assessments of Kraepelin (1903) and Simon (1910) are upheld. The types of all three taxa are congeneric, sharing the following characters considered diagnostic for *Neobuthus* by Kovařík & Lowe (2012): small size (ca. 20–30 mm in total length); cheliceral fixed finger, ventral surface with single denticle; metasomal segments relatively slender with surfaces moderately granular. Therefore, *Nanobuthus* Pocock, 1895, **stat. rev.**, is revalidated and *Neobuthus* Hirst, 1911, synonymized with it, resulting in *Neobuthus* Hirst, 1911 = *Nanobuthus* Pocock, 1895, **syn. nov.**, and 21 new combinations (Appendix 1).]

Odontobuthus Vachon, 1950a [12 extant species]. Type species: *Buthus doriae* Thorell, 1876b = *Odontobuthus doriae* (Thorell, 1876b), by original designation.

Olivierus Farzanpay, 1987 [18 extant species]. Type species: *Androctonus caucasicus* Nordmann, 1840 = *Olivierus caucasicus* (Nordmann, 1840), by monotypy. [The validity of this genus was doubted by Fet & Lowe (2000). It was synonymized by Gantenbein *et al.* (2003) but revalidated by Kovařík (2019a). This decision remains to be rigorously tested.]

Afghanobuthus Lourenço, 2005a. Type species: *Afghanobuthus naumanni* Lourenço, 2005a = *Olivierus parthorum* (Pocock, 1889), by original designation. Synonymized by Fet *et al.* (2018). [The holotype (MNHN RS 8688) of this putative monotypic genus was identified as '*Compsobuthus* sp.' by M. Vachon in 1979. Vachon's identification was plausible, based on the diagnosis, description and illustrations in the original description (Lourenço, 2005a) as well as images of the holotype on the MNHN website, which indicate fused posterior carapacial carinae and tergal carinae projecting beyond the posterior tergite margins, and the small size of the specimen. However, Fet *et al.* (2018) determined the specimen to be an immature *Mesobuthus parthorum* (Pocock, 1889b), currently *Olivierus parthorum* (Pocock, 1889b), with which it was therefore synonymized. One character which lends support for the determination of Fet *et al.* (2018) is the apparent presence of a macrosetal comb on the basitarsus of leg IV, illustrated in Lourenço's (2005a: 112) Figure 4, usually absent in species of *Compsobuthus* Vachon, 1949a, which are not fossorial. Consequently, the synonymy is upheld.]

Orthochiroides Kovařík, 1998a [4 extant species]. Type species: *Orthochiroides vachoni* Kovařík, 1998a, by original designation. [Examination of three paratypes of *Orthochiroides vachoni* Kovařík, 1998a (SMF 39264, ZMB 31548 and ZMH A1/99, all ex MZUF 536), and the holotype of *Orthochiroides insularis* (Pocock, 1899a) (BMNH 1899.7.4.180), confirmed the validity of this genus, synonymized with *Orthochirus* Karsch, 1891, by Lourenço & Ythier (2021) but revalidated by Kovařík & Lowe (2022). Although distantly related (Štundlová *et al.*, 2022), *Orthochiroides* resembles *Microbuthus* Kraepelin, 1898a, in the shape and carination of the carapace and the presence of a ventromedian carina on the telson.]

Orthochirus Karsch, 1891 [58 extant species, 1 *nomen dubium*]. Type species: *Orthodactylus olivaceus* Karsch, 1881a = *Orthochirus scrobiculosus* (Grube, 1873), by original designation. [Replacement name for *Orthodactylus* Karsch, 1881a.]

Orthodactylus Karsch, 1881a. [Junior homonym of *Orthodactylus* Hitchcock, 1858 (Reptilia).]

Simonoides Vachon & Farzanpay, in Farzanpay, 1987. Type species: *Simonoides farzanpayi* Vachon & Farzanpay, in Farzanpay, 1987 = *Orthochirus farzanpayi* (Vachon & Farzanpay, in Farzanpay, 1987), by original designation. Synonymized by Kovařík & Fet (2006a). [The synonymy of Kovařík & Fet (2006a) was confirmed by examination of the lectotype and paralectotypes (NHMW) of *Orthochirus farzanpayi* (Vachon & Farzanpay, in Farzanpay, 1987).]

Pseudorthochirus Lourenço & Vachon, 1995 [*nomen nudum*, *lapsus calami*]. [Misprinted instead of *Paraorthochirus* Lourenço & Vachon, 1995, according to Fet & Lowe (2000).]

Baloorthochirus Kovařík, 1996. Type species: *Baloorthochirus becvari* Kovařík, 1996 = *Orthochirus becvari* (Kovařík, 1996), **comb. nov.**, by original designation. [Based on the diagnosis, *Baloorthochirus* Kovařík, 1996, is congeneric with *Orthochirus* Karsch, 1891. The only diagnostic character proposed to separate this monotypic genus from *Orthochirus* in the key of Kovařík (1996: 178) is the granular (not punctate) metasomal segment V. Other putatively diagnostic characters of *Baloorthochirus*, *e.g.*, telson vesicle narrow and smooth, pedipalp femur trichobothrium d_2 "absent on dorsal surface but present as internal trichobothrium" are observed in *Orthochirus*. The phylogenetic analyses of Kovařík & Lowe (2022: 31, 34) are also consistent with the conclusion that *Baloorthochirus* and *Orthochirus* are congeneric. These genera share three unique synapomorphies: metasomal segment III, widening from posterior margin "abruptly stepped"; telson vesicle lateral profile (♂) slender, pyriform; telson vesicle width/metasomal segment V width < 0.5. Only one unique synapomorphy separates *Orthochirus* from *Baloorthochirus*: metasomal segments III and IV, anterior corners with "wedge-shaped processes". The characters in question, while diagnostic between species, do not merit recognition of a monotypic genus (*e.g.*, Vachon, 1952; Lamoral, 1979; Prendini, 2001d, 2004). For these reasons, *Baloorthochirus* Kovařík, 1996 = *Orthochirus* Karsch, 1891, **syn. nov.**, resulting in *Orthochirus becvari* (Kovařík, 1996), **comb. nov.**]

Pakistanorthochirus Lourenço, 1997a. Type species: *Pakistanorthochirus weitschati* Lourenço, 1997a = *Orthochirus pallidus* Pocock, 1897a, **syn. nov.**, by original designation. [Kovařík (2004b) synonymized this monotypic genus with *Baloorthochirus* Kovařík, 1996, a junior synonym of *Orthochirus* Karsch, 1891 (see above). Therefore, *Pakistanorthochirus* Lourenço, 1997a = *Orthochirus* Karsch, 1891, **syn. nov.** Additionally, based on comparison of the holotype (ZMH) of *Pakistanorthochirus weitschati* Lourenço, 1997a, with the holotype (BMNH 1896.10.20.24) and nontype material (AMNH) of *Orthochirus pallidus* Pocock, 1897a, also from Pakistan, these taxa appear to be conspecific. *Pakistanorthochirus* shares with *O. pallidus* nine primary denticle rows on the pedipalp chela movable finger; 17 vs. 15 pectinal teeth; similar tarsal setation; and slightly more developed lobes, posteriorly, on the ventrolateral carinae of metasomal segment V. Consequently, *Pakistanorthochirus weitschati* Lourenço, 1997a = *Orthochirus pallidus* Pocock, 1897a, **syn. nov.**]

Afghanorthochirus Lourenço & Vachon, 1997. Type species: *Afghanorthochirus erardi* Lourenço & Vachon, 1997 = *Orthochirus erardi* (Lourenço & Vachon, 1997), by original designation. Synonymized by Kovařík (2004b). [Kovařík's (2004b) synonymy was confirmed based on examination of the holotype (MNHN RS 8530) and paratypes (MNHN RS 2403, RS 8533) of *Afghanorthochirus erardi* Lourenço & Vachon, 1997.]

Paraorthochirus Lourenço & Vachon, 1997. Type species: *Paraorthochirus stockwelli* Lourenço & Vachon, 1995 = *Orthochirus stockwelli* (Lourenço & Vachon, 1995), by subsequent designation (Lourenço & Vachon, 1997). Synonymized by Navidpour *et al.* (2008). [The name *Paraorthochirus*, as published by Lourenço & Vachon (1995), is not available under this date as its type species was not designated (Fet & Lowe, 2000).]

Fetilinia Lowe & Kovařík, 2021. Type species: *Fetilinia dentator* Lowe & Kovařík, 2021 = *Orthochirus flavescens* (Pocock, 1897a), **syn. nov.** [This monotypic genus was based on two immature specimens from a locality in the upper Indus River valley of Pakistan. According to Lowe & Kovařík (2021: 1) it bears some resemblance to *Orthochirus* Karsch, 1891, and similar genera in "having a trapezoidal carapace and small abbreviated pedipalps" but differs in "having a strongly dentate metasoma", characterized by enlarged dentition on the ventrolateral and ventrosubmedian carinae of metasomal segments II and III, apparently resembling *Kraepelinia* Vachon, 1974, in this respect. Based on the diagnosis of this monotypic genus, as well as examination of adult and immature material, closely matching its description, from eight localities in the upper Indus River valley (AMNH), *Fetilinia dentator* Lowe & Kovařík, 2021, is conspecific with *Orthochirus flavescens* (Pocock, 1897a). The phylogenetic analyses of Kovařík & Lowe (2022: 31, 34) are also consistent with the conclusion that *Fetilinia* Lowe & Kovařík, 2021, and *Orthochirus* are congeneric. No unique autapomorphies define *Fetilinia*, which shares the following unique synapomorphies with *Orthochirus*: metasomal segments III and IV, anterior corners with "wedge-shaped processes"; metasomal segment III, widening from posterior margin "abruptly stepped"; telson vesicle lateral profile (♂) slender, pyriform; telson vesicle width/metasomal segment V width < 0.5. Two homoplasious autapomorphies of *Fetilinia*, *i.e.*, sternite VII lateral carinae absent and metasomal segment V ventrolateral carinae lobate, are appropriately regarded as diagnostic at the species level. Therefore, *Fetilinia* Lowe & Kovařík, 2021 = *Orthochirus* Karsch, 1891, **syn. nov.**, and *Fetilinia dentator* Lowe & Kovařík, 2021 = *Orthochirus flavescens* (Pocock, 1897a), **syn. nov.**]

Pectinibuthus Fet, in Orlov & Vasilyev, 1984 [1 extant species]. Type species: *Pectinibuthus birulai* Fet, in Orlov & Vasilyev, 1984, by monotypy. [Orlov & Vasilyev (1984) published a brief description of this genus and species. An extended description with information on the type material was published by Fet (1987b); however, the correct date of description is 1984 (Fet, 1997a; Fet & Lowe, 2000). The status and affinities of this monotypic genus are unclear. It does not appear to have been collected or examined since its description and the type specimens are apparently lost (B. Korotyaev, in litt.).]

Picobuthus Lowe, 2010 [2 extant species]. Type species: *Picobuthus wahibaensis* Lowe, 2010, by original designation.

Plesiobuthus Pocock, 1900a [1 extant species]. Type species: *Plesiobuthus paradoxus* Pocock, 1900a, by original designation. [According to Fet & Lowe (2000) and Capes & Fet (2001), the holotype could not be found in the BMNH and is presumed lost. A specimen at the ZMH was designated as neotype by W.D. Sissom. This monotypic genus was considered a junior synonym of *Liobuthus* Birula, 1898, by some authors (Birula, 1904; Kraepelin, 1905; Werner, 1934; Francke, 1985) and was not listed in Sissom's (1990) generic key. Other authors (Kraepelin, 1913; Stahnke, 1972; Fet, 1989; Fet & Lowe, 2000; Capes & Fet, 2001) confirmed its validity as a distinct genus which lacks tibial spurs on legs III and IV, like *Liobuthus* and *Pectinibuthus* Fet, in Orlov & Vasilyev, 1984, but possesses a long pedal spur (Pocock, 1900a; Stahnke, 1972). These conclusions were verified by examination of the neotype (ZMH).]

Sassanidotus Farzanpay, 1987 [2 extant species]. Type species: *Buthus zarudnyi* Birula, 1900 = *Sassanidotus zarudnyi* (Birula, 1900), by original designation. [The validity of this genus, the type species of which was previously assigned to *Mesobuthus* Vachon, 1950a, was doubted by Fet & Lowe (2000: 222) who noted that "No revisionary study exists of the relationship between *Sassanidothus* and close genera such as *Mesobuthus*, *Olivierus*, and *Iranobuthus*". The genus was upheld by Kovařík & Fet (2006b), a decision which remains to rigorously tested.]

Somalibuthus Kovařík, 1998a [15 extant species, 3 *nomina dubia*]. Type species: *Somalibuthus demisi* Kovařík, 1998a, by original designation.

Gint Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b. Type species: *Gint gaitako* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b = *Somalibuthus gaitako* (Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b), **comb. nov.**, by original designation. [In the original description, *Gint* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b, was erroneously suggested to be more closely related to *Buthacus* Birula, 1908, than to *Neobuthus* Hirst,

1911, the apparent similarity to the former probably the result of convergence to psammophily as it is more closely related to the latter (Kovařík & Lowe, 2022; Štundlová *et al.*, 2022). Based on comparison of topotypes of *Gint gaitako* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b (AMNH), with the type material of *Somalibuthus demisi* Kovařík, 1998a (MZUF 535, 830), the type species of *Gint* and *Somalibuthus* Kovařík, 1998a, are evidently congeneric, consistent with the phylogenetic analyses of Kovařík & Lowe (2022). According to Kovařík & Lowe (2022: 31, 34), these genera share two unique synapomorphies and one homoplasious synapomorphy: sternite VII submedian carinae absent, metasomal segment I ventromedian surface smooth and ventrosubmedian carinae obsolete. Therefore, *Gint* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b = *Somalibuthus* Kovařík, 1998a, **syn. nov.**, resulting in fourteen new combinations (Appendix 1).]

Sahil Kovařík, 2024. Type species: *Sahil elmi* Kovařík, 2024 = *Somalibuthus elmi* (Kovařík, 2024), **comb. nov.**, by original designation. [This monotypic genus was differentiated from *Gint* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b, by the presence of one fewer row (7) of median denticles on the movable finger of the pedipalp chela, the absence of petite trichobothrium d_2 on the pedipalp femur, and broader pedipalp and metasomal segments. It was differentiated from *Somalibuthus* Kovařík, 1998a, by the absence of anterosubmedian carinae on the carapace—clearly visible in Kovařík's (2024: 4) Figure 2, however—lobate dentition on the ventrolateral carinae of metasoma V, two teeth on the ventral surface of the cheliceral fixed finger, and pedipalp chela trichobothria V_1 and V_2 aligned (in the same axis). Except for the number of teeth on the ventral surface of the chelicera, revealed by the analysis of Kovařík & Lowe (2022) to be a homoplasious autapomorphy (*i.e.*, a reversal) in *Somalibuthus*, the other characters vary among congeners and are more appropriately regarded as diagnostic at the species level (*e.g.*, Kovařík *et al.*, 2013b, 2018a; Kovařík & Mazuch, 2015; Kovařík, 2018a; Kovařík & Lowe, 2019). Additionally, this species shares two unique synapomorphies and one homoplasious synapomorphy with *Gint* and *Somalibuthus*, according Kovařík & Lowe (2022): sternite VII submedian carinae absent, metasomal segment I ventromedian surface smooth and ventrosubmedian carinae obsolete. Based on these observations, confirmed by examination of topotypes (AMNH), the type species of this monotypic genus is evidently congeneric with *Gint* and *Somalibuthus*, hence *Sahil* Kovařík, 2024 = *Somalibuthus* Kovařík, 1998a, **syn. nov.**, resulting in one new combination (Appendix 1).]

Sanaag Kovařík, 2024. Type species: *Gint maidensis* Kovařík, Lowe, Just, Awale, Elmi & Šťáhlavský, 2018a = *Somalibuthus maidensis* (Kovařík, Lowe, Just, Awale, Elmi & Šťáhlavský, 2018a), **comb. nov.**, by original designation. [The type species of this monotypic genus was originally assigned to *Gint* Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b. According to Kovařík (2024: 3), "further DNA (Just *et al.*, 2022) and phylogenetic (Kovařík & Lowe, 2022) analyses, however, clearly demonstrated that [it] belongs to a separate, new genus. The two genera differ in the shape of the hemispermatophore, which has a large, tall, subtriangular hook-like basal lobe in *Sanaag* gen. n. and a small to medium sized, low, rounded, scoop-like basal lobe in *Gint*. Also, telson is rather bulbous in *Sanaag* gen. n. (telson L/D ratio 2.67–2.78 in males) and rather elongated in *Gint* (telson L/D ratio 2.98–3.60 in males)." Based on the original description and examination of topotypes (AMNH), as well as the phylogenetic analyses of Kovařík & Lowe (2022) and Štundlová *et al.* (2022), the type species of *Sanaag* Kovařík, 2024, is congeneric with *Gint* and *Somalibuthus* Kovařík, 1998a. According to Kovařík & Lowe (2022: 31, 34), this species shares two unique synapomorphies and one homoplasious synapomorphy with *Gint banfasae* Kovařík & Lowe, 2019 = *Somalibuthus banfasae* (Kovařík & Lowe, 2019), **comb. nov.**, and *Somalibuthus sabae* Kovařík & Njoroge, 2021: sternite VII submedian carinae absent; metasomal segment I ventromedian surface smooth; and ventrosubmedian carinae obsolete. The karyotype differences described by Just *et al.* (2022) are autapomorphic and thus phylogenetically uninformative whereas the minor differences in shape of the hemispermatophore and telson (Kovařík, 2024) are appropriately regarded as diagnostic at the species level (*e.g.*, Kovařík *et al.*, 2013b, 2018a; Kovařík & Mazuch, 2015; Kovařík, 2018a; Kovařík & Lowe, 2019). Therefore, *Sanaag* Kovařík, 2024 = *Somalibuthus* Kovařík, 1998a, **syn. nov.**, resulting in one new combination (Appendix 1).]

Trypanothacus Lowe, Kovařík, Stockmann & Šťáhlavský, 2019 [3 extant species]. Type species: *Trypanothacus barnesi* Lowe, Kovařík, Stockmann & Šťáhlavský, 2019, by original designation. [Cain *et al.* (2021) expressed doubts about the validity of this genus, relative to other psammophilous Palearctic buthid genera, *e.g.*, *Buthiscus* Birula, 1905, *Liobuthus* Birula, 1898, *Pectinibuthus* Fet, in Orlov & Vasilyev, 1984, *Plesiobuthus* Pocock, 1900a, and *Vachoniolus* Levy *et al.*, 1973.]

Vachoniolus Levy, Amitai & Shulov, 1973 [4 extant species]. Type species: *Vachoniolus globimanus* Levy, Amitai & Shulov, 1973, by original designation.

Xenobuthus Lowe, 2018 [3 extant species]. Type species: *Buthus anthracinus* Pocock, 1895 = *Xenobuthus anthracinus* (Pocock, 1895), by original designation.

Subfamily **Charminae** Birula, 1917, **stat. rev.**[5]
(15 extant genera, 1 extinct genus)

Butheoloides Hirst, 1925 [21 extant species]. Type species: *Butheoloides maroccanus* Hirst, 1925, by monotypy.

Anoplobuthus Caporiacco, 1932b. Type species: *Anoplobuthus parvus* Caporiacco, 1932b = *Butheoloides maroccanus* Hirst, 1925, by original designation. Synonymized by Lamoral & Reynders (1975).

Butheoloides (*Gigantoloides*) Lourenço, 2002c. Type species: *Butheoloides* (*Gigantoloides*) *aymerichi* Lourenço, 2002c = *Butheoloides aymerichi* (Lourenço, 2002c), **comb. nov.**, by original designation. [Based on the original description and comparison of topotypes of *Butheoloides* (*Gigantoloides*) *aymerichi* Lourenço, 2002c (AMNH) and nontype material of *Butheoloides maroccanus* Hirst, 1925 (AMNH), the type species of this monotypic subgenus is evidently congeneric with *Butheoloides* Hirst, 1925, from which it differs primarily by its larger size. *Butheoloides* (*Gigantoloides*) Lourenço, 2002c, shares with the nominotypical subgenus a similar trichobothrial pattern (orthobothriotaxic major Type A α), the absence of carinae on carapace, metasoma and pedipalps, and the presence of a subaculear tubercle on the telson. Despite superficially resembling *Lissothus* Vachon, 1948, in the larger size, relatively slender and elongated pedipalp fingers, and absence of carinae on the carapace, metasoma and pedipalps, *Lissothus* differs in the pedipalps being neobothriotaxic minor Type A β, lacking trichobothrium d_2 on the femur and trichobothrium *esb* on the chela fixed finger; ventrolateral carinae partially developed on metasomal segment V; and the absence of a subaculear tubercle (*e.g.*, Vachon, 1963; Stockmann *et al.*, 2016; Yağmur *et al.*, 2025). Consequently, *Butheoloides* (*Gigantoloides*) Lourenço, 2002c = *Butheoloides* Hirst, 1925, **syn. nov.**, resulting in *Butheoloides aymerichi* (Lourenço, 2002c), **comb. nov.**]

Mauritanobuthus Qi & Lourenço, 2007. Type species: *Mauritanobuthus geniezi* Qi & Lourenço, 2007 = *Butheoloides geniezi* (Qi & Lourenço, 2007), **comb. nov.**, by original designation. [According to the original description (Qi & Lourenço, 2007: 82), this monotypic genus is associated with *Butheoloides* (*Gigantoloides*) Lourenço, 2002c = *Butheoloides* Hirst, 1925, **syn. nov.**, and *Egyptobuthus* Lourenço, 1999a = *Uroplectes* Peters, 1861b, **syn. nov.** (see below), because the pedipalps are orthobothriotaxic major Type A α, in addition to "general morphology" (presumably, habitus), "disposition" of the pedipalp chela finger dentition, and the absence of carapacial carinae, but differs from these taxa in being larger than *Butheoloides*, the absence of a subaculear tubercle, and an enlarged basal pectinal tooth (erroneously stated as the "basal middle lamella") in the female. The size is consistent with *Butheoloides* (*Gigantoloides*) and the other characters are known to vary interspecifically in other charmine genera, *e.g.*, *Uroplectes*. Based on comparison of the holotype of *Mauritanobuthus geniezi* Qi & Lourenço, 2007 (MNHN RS 8661) with topotypes and nontype material of *Butheoloides* (*Gigantoloides*) *aymerichi* Lourenço, 2002c, and *Butheoloides maroccanus* Hirst, 1925 (AMNH), this monotypic genus is assessed to be congeneric with *Butheoloides*. Therefore, *Mauritanobuthus* Qi & Lourenço, 2007 = *Butheoloides* Hirst, 1925, **syn. nov.**, resulting in *Butheoloides geniezi* (Qi & Lourenço, 2007), **comb. nov.**]

Buthoscorpio Werner, 1936 [5 extant species]. Type species: *Buthoscorpio laevicauda* Werner, 1936 = *Buthoscorpio politus* (Pocock, 1899b), by original designation.

Stenochirus Karsch, 1891. Type species: *Stenochirus sarasinorum* Karsch, 1891 = *Buthoscorpio sarasinorum* (Karsch, 1891), by monotypy. [Junior homonym of †*Stenochirus* Oppel, 1862 (Crustacea: Decapoda).] Synonymized by Francke (1985). [Two species assigned to *Stenochirus* Karsch, 1891, by Amir *et al.* (2005a) are synonymized (Appendix 1) based on photographs presented by Amir (1997).]

Pocockius Francke, 1985. Type species: *Stenochirus sarasinorum* Karsch, 1891 = *Buthoscorpio sarasinorum* (Karsch, 1891), by original designation. [Replacement name for *Stenochirus* Karsch, 1891.] Synonymized by Fet (1997a). [Francke (1985) discovered the homonymy of *Stenochirus* Karsch, 1891, and *Stenochirus* Oppel, 1862 (Crustacea), and introduced the replacement name, *Pocockius* Francke, 1985. However, Fet (1997a) demonstrated that the junior synonym *Buthoscorpio* Werner, 1936, is available and has priority over *Pocockius*.]

Charmus Karsch, 1879b [5 extant species]. Type species: *Charmus laneus* Karsch, 1879b, by monotypy.

Heterocharmus Pocock, 1892. Type species: *Heterocharmus cinctipes* Pocock, 1892 = *Charmus laneus* Karsch, 1879b, by monotypy. Synonymized by Pocock (1900a).

Grosphus Simon, 1880 [14 extant species]. Type species: *Scorpio* (*Androctonus*) *madagascariensis* Gervais, 1843 = *Grosphus madagascariensis* (Gervais, 1843), by original designation.

Karasbergia Hewitt, 1913 [1 extant species]. Type species: *Karasbergia methueni* Hewitt, 1913, by monotypy.

Microcharmus Lourenço, 1995b [26 extant species, 1 extinct species]. Type species: *Microcharmus cloudsleythompsoni* Lourenço, 1995b, by original designation.

Pseudouroplectes Lourenço, 1995b. Type species: *Pseudouroplectes betschi* Lourenço, 1995b = *Microcharmus betschi* (Lourenço, 1995b), **comb. nov.**, by original designation. [Based on the generic diagnosis and examination of type and nontype material of the type species (MNHN RS 8512, RS 8677) and other species assigned to *Microcharmus* Lourenço, 1995b, and *Pseudouroplectes* Lourenço, 1995b (AMNH, CAS), these taxa are evidently congeneric. The two genera share small size and yellowish coloration with various degrees of mottled infuscation; a subtriangular to subpentagonal sternum; oval respiratory spiracles; the absence of a subaculear tubercle on the telson; chelicerae with basal teeth very small, indistinct; pedipalps orthobothriotaxic Type A α; pedipalp chela movable finger, median denticle row comprising 6/7 subrows; pectinal fulcra absent; basal pectinal tooth (♀) unmodified; and tibial spurs reduced or absent on legs III and IV. The two putative genera appear to be separated primarily by differences in pectinal tooth count (15–19 in *Pseudouroplectes* vs. 8–11 in *Microcharmus*) and shape of the pectinal peg sensillae, which are relatively short and spatulate in *Pseudouroplectes* but long and bottle-shaped in *Microcharmus* (Lourenço, 2004). Pectinal tooth counts vary considerably among congeners (as well as intraspecifically, *e.g.*, Prendini, 2001c, 2004) whereas peg sensilla appear to be strongly affected by the humidity of the habitat, tending to be shorter in arid habitats and longer in humid habitats (Lourenço, 2004), consistent with the occurrence of *Pseudouroplectes* in the dry spiny forest-thicket and coastal bushland of southwestern Madagascar and *Microcharmus* in the humid, sub-humid and dry forests of northeastern and western Madagascar (Lourenço *et al.*, 2016a). As discussed by Botero-Trujillo & Noriega (2011: 40–44) similar sensillar shapes may occur in distantly related taxa (different genera and even families) whereas congeners may exhibit markedly different sensillae, probably due to convergent adaptation in similar habitats. Consequently, in the absence of compelling evidence to the contrary, *Pseudouroplectes* Lourenço, 1995b = *Microcharmus* Lourenço, 1995b, **syn. nov.**, resulting in six new combinations (Appendix 1). Although *Pseudouroplectes* was described two pages before *Microcharmus* in the same publication (Lourenço, 1995b), it was synonymized with the latter in the interests of stability: a greater number of species and publications concern *Microcharmus*, which is also the type genus of Microcharminae Lourenço, 1996c = Charminae Birula, 1917, **syn. nov.**]

Neoprotobuthus Lourenço, 2000b. Type species: *Neoprotobuthus intermedius* Lourenço, 2000b = *Microcharmus intermedius* (Lourenço, 2000b), **comb. nov.**, by original designation. [Based on the diagnosis, images of the holotype (FMNH) and examination of nontype material (MNHN RS 9031), this monotypic genus is congeneric with *Microcharmus* Lourenço, 1995b. The type species of *Neoprotobuthus* Lourenço, 2000b, closely matches *Microcharmus* in sharing a subpentagonal sternum; the absence of a subaculear tubercle on the telson; pedipalps orthobothriotaxic Type A α; absence of pectinal fulcra; the basal pectinal tooth (♀) unmodified; elongate, bottle-shaped pectinal peg sensilla (Lourenço, 2004). It cannot be reliably separated from *Microcharmus* by means of the proposed diagnostic differences (Lourenço, 2000b: 878): slightly larger size (18–20 mm vs. 7–16 mm in total length); respiratory spiracles "semi-slit-like" vs. round or oval; cheliceral movable finger basal teeth distinct vs. fused, pro- and retrolateral teeth equal vs. subequal, retrolateral tooth smaller than prolateral; pectinal basal piece less divided; tibial spurs on legs III and IV reduced vs. absent; and an erroneous difference in the number of pairs of lateral ocelli (allegedly three pairs of lateral ocelli vs. two or three pairs). In fact, *Microcharmus* possesses three or four pairs, *i.e.*, two or three major ocelli (MLMa and PLMa, with or without ALMa, and one minor ocellus (ADMi), situated anterodorsal or dorsal to PLMa (Loria & Prendini, 2014). In the absence of compelling evidence to the contrary, *Neoprotobuthus* Lourenço, 2000b = *Microcharmus* Lourenço, 1995b, **syn. nov.**, resulting in *Microcharmus intermedius* (Lourenço, 2000b), **comb. nov.**]

Ankaranocharmus Lourenço, 2004. Type species: *Ankaranocharmus pauliani* Lourenço, 2004 = *Microcharmus pauliani* (Lourenço, 2004), by original designation. Synonymized by Lourenço *et al.* (2006). [The two subspecies of *Microcharmus pauliani* (Lourenço, 2004), which appear to be diagnosable from the nominotypical form, are elevated to the rank of species (Appendix 1).]

Neogrosphus Lourenço, 1995b [3 extant species]. Type species: *Grosphus griveaudi* Vachon, 1969 = *Neogrosphus griveaudi* (Vachon, 1969), by original designation.

Paragrosphus Vachon, 1968 [*nomen nudum*]. Type species: *Paragrosphus griveaudi* Vachon, 1968 [*nomen nudum*]. [As noted by Fet & Lowe (2000), CIDA (1968: 32) announced a new paper "*Paragrosphus griveaudi*, n.g., sp. nov. de scorpions Buthidae malgaches", by M. Vachon. When published under a different title, the paper (Vachon, 1969) did not contain the new generic description; thus, the name "*Paragrosphus* Vachon, 1968" is not available.]

†***Palaeogrosphus*** Lourenço, 2000c [2 extinct species]. Type species: †*Tityobuthus copalensis* Lourenço, 1996b = †*Palaeogrosphus copalensis* (Lourenço, 1996b), by original designation.

Parabuthus Pocock, 1890a, as *Buthus* (*Parabuthus*) Pocock, 1890a [43 extant species]. Type species: *Androctonus leiosoma* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Parabuthus liosoma* (Ehrenberg, in Hemprich & Ehrenberg, 1828), by original designation. [The name *Androctonus* (*Prionurus*) *leiosoma* was introduced by Ehrenberg, in Hemprich & Ehrenberg (1828), referring to a figure (available under Article 12.2.7 of the ICZN, 1985, 1999). Ehrenberg, in Hemprich & Ehrenberg (1829) used the same spelling but later (Ehrenberg, in Hemprich & Ehrenberg, 1831) changed it to *liosoma*. As noted by Acosta & Fet (2005), the latter constitutes an incorrect subsequent spelling, which was widely accepted, nonetheless. Braunwalder & Fet (1998) detected the long unused spelling of the name, *leiosoma*, and proposed that it should be restored. Fet & Lowe (2000) followed this decision despite listing about forty citations using *liosoma* as the valid name, which therefore represents the prevailing usage. Following Acosta & Fet (2005), *liosoma* is the correct spelling and is retained (Article 33.3.1).]
Heterobuthus Kraepelin, 1891. Type species: *Androctonus leiosoma* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Parabuthus liosoma* (Ehrenberg, in Hemprich & Ehrenberg, 1828), by subsequent designation (Kraepelin, 1895). Synonymized by Thorell (1893).

Riftobuthus Lourenço, Duhem & Cloudsley-Thompson, 2010a. Type species: *Riftobuthus inexpectatus* Lourenço, Duhem & Cloudsley-Thompson, 2010a = *Parabuthus maximus* Werner, 1913, **syn. nov.**, by original designation. Synonymized by Kovařík *et al.* (2016c). [Kovařík *et al.* (2016c) correctly deduced that this monotypic genus is congeneric with *Parabuthus* Pocock, 1890a, and synonymized it accordingly. Kovařík *et al.* (2016c) further suggested that the type species is probably a junior synonym of *Parabuthus pallidus* Pocock, 1895. However, based on the presence of a pit anteriomedially on sternite III, the relatively slender metasomal segments and telson, and the size and relative positions of the posterior and subposterior lobes on the ventrolateral carinae of metasomal segment V, illustrated in Figure 1 of Lourenço *et al.* (2010a: 282), the type species is evidently conspecific with *Parabuthus hamar* Kovařík, Lowe, Plíšková & Šťáhlavský, 2016c, which is, in turn, conspecific with *Parabuthus maximus* Werner, 1913, based on morphological and molecular evidence from topotypes (AMNH). Consequently, *Parabuthus hamar* Kovařík, Lowe, Plíšková & Šťáhlavský, 2016c = *Parabuthus maximus* Werner, 1913, **syn. nov.**, and *Riftobuthus inexpectatus* Lourenço, Duhem & Cloudsley-Thompson, 2010a = *Parabuthus maximus* Werner, 1913, **syn. nov.**]

Pseudolissothus Lourenço, 2001d [1 extant species]. Type species: *Pseudolissothus pusillus* Lourenço, 2001d, by original designation. [The holotype of this monotypic genus (MNHN RS 7062) was examined and compared with the types of *Lissothus occidentalis* Vachon, 1950a (MNHN RS 1279) and nontype material of *Butheloides maroccanus* Hirst, 1925 (AMNH, MNHN). Although superficially resembling *Lissothus* Vachon, 1948, in the general absence of carinae on the carapace, tergites, metasoma and pedipalps (Lourenço, 2001d), this taxon is most closely related to *Butheloides* Hirst, 1925, with which it shares the following characters: carapace anterior margin emarginate, concave; pedipalps orthobothriotaxic major Type A α; high counts of prolateral accessory denticles (ca. 13) and denticle rows (ca. 11) on the pedipalp chela fingers; ventrolateral carinae absent or obsolete on metasomal segment V; subaculear tubercle present. *Lissothus* differs in the pedipalps being neobothriotaxic minor Type A β, lacking trichobothrium d_2 on the femur and trichobothrium *esb* on the chela fixed finger; carapace anterior margin entire, linear; low counts of prolateral accessory denticles (0–2) and denticle rows (3) on the pedipalp chela fingers; ventrolateral carinae partially developed on metasomal segment V; subaculear tubercle absent (*e.g.*, Vachon, 1963; Stockmann *et al.*, 2016; Yağmur *et al.*, 2025).]

Pseudolychas Kraepelin, 1911 [3 extant species]. Type species: *Lychas pegleri* Purcell, 1901 = *Pseudolychas pegleri* (Purcell, 1901), by original designation.

Somalicharmus Kovařík, 1998a [1 extant species]. Type species: *Somalicharmus whitmanae* Kovařík, 1998a, by original designation.

Teruelius Lowe & Kovařík, 2019 [22 extant species]. Type species: *Buthus limbatus* Pocock, 1889a = *Teruelius limbatus* (Pocock, 1889a), by original designation.

Thaicharmus Kovařík, 1995 [4 extant species]. Type species: *Thaicharmus mahunkai* Kovařík, 1995, by original designation.

Tityobuthus Pocock, 1893b [22 extant species]. Type species: *Rhoptrurus baroni* Pocock, 1890a = *Tityobuthus baroni* (Pocock, 1890a), by original designation.

Troglotityobuthus Lourenço, 2000c. Type species: *Babycurus gracilis* Fage, 1946 = *Troglotityobuthus gracilis* (Fage, 1946) = *Tityobuthus gracilis* (Fage, 1946), **comb. nov.**, by original designation. [It is apparent from Fage's (1946) original description of *Babycurus gracilis* Fage, 1946, and Lourenço's (2000c) diagnosis of *Troglotityobuthus* Lourenço,

2000c, that this monotypic genus is merely an attenuated, depigmented, troglobitic species of *Tityobuthus* Pocock, 1893b (Volschenk & Prendini, 2008; Prendini *et al.*, 2021). Comparison of Lourenço's (2000c: 722, 276) diagnoses of *Troglotityobuthus* and *Tityobuthus* revealed the following shared characters: carapace with moderate concavity; median ocular tubercule situated anteromedially; three pairs of lateral ocelli; sternum triangular; respiratory stigmata short, linear; telson vesicle very slender, aculeus long, moderately curved, with spinoid subaculear tubercle; chelicerae with buthid dentition pattern (Vachon, 1963); pedipalps slender, orthobothriotaxic Type A α; legs with tibial spurs present (present or absent in *Tityobuthus*); pectines with basal middle lamellae not dilated in female, fulcra present (present or absent in *Tityobuthus*), and 20/20 teeth (11–25 in *Tityobuthus*). Aside from the absence of pigmentation, dorsoventral compression and long, slender appendages (including pedipalp chelae), the only character separating these genera appears to be the count of subrows in the median denticle rows of the chela fingers (9/10 in *Troglotityobuthus* compared with 7/8 in *Tityobuthus*), a character which varies among congeners. As most of the putative diagnostic characters are troglomorphies (Volschenk & Prendini, 2008; Prendini *et al.*, 2021), which do not permit the separation of this genus from *Tityobuthus*, *Troglotityobuthus* Lourenço, 2000c = *Tityobuthus* Pocock, 1893b, **syn. nov.**, resulting in *Tityobuthus gracilis* (Fage, 1946), **comb. nov.**]

Uroplectes Peters, 1861b [40 extant species]. Type species: *Uroplectes ornatus* Peters, 1861b = *Uroplectes flavoviridis* Peters, 1861b, by original designation. [*Uroplectes silvestrii* (Borelli, 1913, is transferred to *Butheoloides* Hirst, 1925, resulting in *Butheoloides silvestrii* (Borelli, 1913), **comb. nov.** Additionally, based on examination of type (AMGS, BMNH, SAMC) and/or nontype (AMNH) material, four subspecies, which are diagnosable from the nominotypical forms, are elevated to the rank of species and five subspecies, which are not, are synonymized (Appendix 1).]

Lepreus Thorell, 1876a. Type species: *Lepreus pilosus* Thorell, 1876a = *Uroplectes pilosus* (Thorell, 1876a), by original designation. Synonymized by Karsch (1879a).

Tityolepreus Kraepelin, 1891. Type species: *Tityus chinchoxensis* Karsch, 1879c = *Uroplectes occidentalis* Simon, 1876, by monotypy. Synonymized by Pocock (1893b).

Scorpiobuthus Werner, 1939b. Type species: *Scorpiobuthus apatris* Werner, 1939b = *Uroplectes chubbi* Hirst, 1911, by original designation. Synonymized by Fet & Sissom (1997).

Uroplectoides Lourenço, 1998c. Type species: *Uroplectoides abyssinicus* Lourenço, 1998c = *Uroplectes fischeri* (Karsch, 1879b), by original designation. Synonymized by Kovařík *et al.* (2016a). [This synonym was confirmed by examination of the holotype (ZMH A55/98).]

Egyptobuthus Lourenço, 1999a. Type species: *Egyptobuthus vaissadei* Lourenço, 1999a = *Uroplectes spenceri* Pocock, 1896b, **syn. nov.**, by original designation. [According to the collector of the holotype (H.-W. Herrmann, in litt.), the specimen allegedly collected from "Egypte, region nord du Sinaï, proche d[e]s côtes de la Mer Rouge" (Lourenço, 1999a: 595) was mislabelled and probably originated from the vicinity of Port Elizabeth in the Eastern Cape Province, South Africa, visited by H.-W. Herrmann around the same time. Considering the probable collection locality and following comparison of the holotype of *Egyptobuthus vaissadei* Lourenço, 1999a (MHNG IZ-16) with type material (BMNH 1890.9.24.9-11, 1891.2.25.1-5) and nontype material (AMNH) of *Uroplectes spenceri* Pocock, 1896b, **stat. nov.**, it is apparent that they are conspecific. The holotype female of *E. vaissadei* is a close match to *U. spenceri* in habitus and coloration (carapace, tergites and metasoma), shape of the metasoma, including prominent posterior spiniform granules on the dorsosubmedian carinae of metasomal segments II and III, and telson, including presence of a subaculear tubercle, the counts of median denticle subrows (14) on the pedipalp chela fingers, and the pectinal tooth count, with an enlarged basal pectinal tooth. Consequently, *Egyptobuthus vaissadei* Lourenço, 1999a = *Uroplectes spenceri* Pocock, 1896b, **syn. nov.**, and *Egyptobuthus* Lourenço, 1999a = *Uroplectes* Peters, 1861b, **syn. nov.**]

Subfamily **Isometrinae** Kraepelin, 1891, **stat. rev.**[6]
(18 extant genera, 10 extinct genera)

Afroisometrus Kovařík, 1997a [1 extant species]. Type species: *Lychas minshullae* Fitzpatrick, 1994 =*Afroisometrus minshullae* (Fitzpatrick, 1994), by original designation.

Afrolychas Kovařík, 2019a [2 extant species]. Type species: *Isometrus burdoi* Simon, 1882b = *Afrolychas burdoi* (Simon, 1882b), by original designation.

Akentrobuthus Lamoral, 1976 [2 extant species]. Type species: *Akentrobuthus leleupi* Lamoral, 1976, by monotypy.

Microananteroides Rossi & Lourenço, 2015. Type species: *Microananteroides mariachiarae* Rossi & Lourenço, 2015 = *Akentrobuthus atakora* Vignoli & Prendini, 2008, by original designation. Synonymized by Kovařík *et al.* (2017b). [The conclusion that this

monotypic genus is conspecific with *Akentrobuthus atakora* Vignoli & Prendini, 2008, was reached independently by the author, based on the diagnosis, description and illustrations in the original description (Rossi & Lourenço, 2015) which closely match the latter.]

Ananteris Thorell, 1891 [103 extant species]. Type species: *Ananteris balzanii* Thorell, 1891, by original designation.

Microananteris Lourenço, 2003b. Type species: *Microananteris minor* Lourenço, 2003b = *Ananteris minor* (Lourenço, 2003b), by original designation. Synonymized by Botero-Trujillo & Noriega (2011). [The validity of this genus was doubted by Teruel & García (2007). It was formally synonymized by Botero-Trujillo & Noriega (2011) but revalidated by Lourenço & Chevalier (2022). Based on the original diagnosis, examination of the holotype of *Microananteris minor* Lourenço, 2003b (MNHN RS 8602), and the arguments presented by Teruel & García (2007) and Botero-Trujillo & Noriega (2011), the synonymy is reinstated, *i.e.*, *Microananteris* Lourenço, 2003b = *Ananteris* Thorell, 1891, **syn. nov.**, and four new combinations are recognized (Appendix 1). Whereas *Microananteris* Lourenço, 2003b, shares many characters with *Ananteris* Thorell, 1891, including the absence of pectinal fulcra, pedipalps orthobothriotaxic Type A β, pedipalp chela fingers with 6/7 median denticle subrows, and tibial spurs on legs III and IV, the two taxa appear to differ solely in the shape of the pectinal peg sensillae, which are bottle-shaped in *Microananteris* but spatulate in *Ananteris*. As discussed by Botero-Trujillo & Noriega (2011: 40–44) similar sensillar shapes may occur in distantly related taxa (different genera and even families) whereas congeners may exhibit markedly different sensillae, probably due to convergent adaptation in similar habitats.]

Ananteroides Borelli, 1911 [2 extant species]. Type species: *Ananteroides feae* Borelli, 1911, by monotypy.

†***Archaeoananteroides*** Lourenço, in Lourenço & Velten, 2016 [2 extinct species].[7] Type species: †*Archaeoananteroides maderai* Lourenço, in Lourenço & Velten 2016, by original designation.

Australobuthus Locket, 1990 [1 extant species]. Type species: *Australobuthus xerolimniorum* Locket, 1990, by original designation.

Babycurus Karsch, 1886 [13 extant species, 1 *nomen dubium*]. Type species: *Babycurus buettneri* Karsch, 1886, by subsequent designation (Stahnke, 1972). [One subspecies is synonymized (Appendix 1), based on examination of topotypes (AMNH).]

Barbaracurus Kovařík, Lowe & Šťáhlavský, 2018b [13 extant species]. Type species: *Babycurus sofomarensis* Kovařík, Lowe, Seiter, Plíšková & Šťáhlavský, 2015a = *Barbaracarus sofomarensis* (Kovařík, Lowe, Seiter, Plíšková & Šťáhlavský, 2015a), by original designation.

†***Cretaceousbuthus*** Lourenço, in Lourenço & Velten, 2022 [2 extinct species]. Type species: †*Cretaceousbuthus fraaijeorum* Lourenço, in Lourenço & Velten, 2022, by original designation.

Endotrichus Tikader & Bastawade, 1983, **stat. nov. et stat. rev.**, as *Lychas* (*Endotrichus*) Tikader & Bastawade, 1983 [12 extant species]. Type species: *Isometrus tricarinatus* Simon, 1884 = *Lychas* (*Endotrichus*) *tricarinatus* (Simon, 1884) = *Endotrichus tricarinatus* (Simon, 1884), **comb. nov.**, by indication (Tikader & Bastawade, 1983: 41, fig. 200) and subsequent designation (Fet & Lowe, 2000). [Although a type species was not explicitly listed for subgenus *Lychas* (*Endotrichus*) Tikader & Bastawade, 1983, it was implied to be *Lychas* (*Endotrichus*) *tricarinatus* (Simon, 1884), by reference to an illustration thereof in a key to the subgenera of *Lychas* C.L. Koch, 1845, by Tikader & Bastawade (1983: 41, fig. 200). Consequently, Fet & Lowe (2000: 158) listed *Isometrus tricarinatus* Simon, 1884, as "type species by indication (fig. 200)." Kovařík (2019a: 4) ignored Fet & Lowe (2000), claiming that "no type species were designated [by Tikader & Bastawade (1983)] for their none of [sic] their new subgenera", and designated "*Isometrus scaber* Pocock, 1893" = *Lychas scaber* (Pocock, 1893c), as type species of subgenus *Lychas* (*Endotrichus*). Kovařík's (2019a) action is invalid because not only did Tikader & Bastawade (1983) indicate the type species by referring to an illustration of *L. tricarinatus* in their key to the subgenera but, in subsequently listing that species as type species of the subgenus, Fet & Lowe (2000) fulfilled Article 69.1 of the ICZN (1999) which states: "If an author established a nominal genus or subgenus but did not fix its type species, the first author who subsequently designates one of the originally included nominal species [Art. 67.2] validly designates the type species of that nominal genus or subgenus (type by subsequent designation), and no later designation is valid." Kovařík (1995) synonymized subgenus *Lychas* (*Endotrichus*) with the nominotypical subgenus but later (Kovařík, 2019a) erected genus *Janalychas* Kovařík, 2019a, with *Lychas srilankensis* Lourenço, 1997e, as type species. Based on comparison of nontype material (AMNH), as well as the analyses of Štundlová *et al.* (2022), the type species of *Janalychas* and *Lychas* (*Endotrichus*) are congeneric, justifying the recognition of *Endotrichus* Tikader & Bastawade, 1983, **stat. nov.**, the new generic synonym (below), and twelve new combinations (Appendix 1).]

Janalychas Kovařík, 2019a. Type species: *Lychas srilankensis* Lourenço, 1997e = *Endotrichus srilankensis* (Lourenço, 1997e), **comb. nov.**, by original designation. [As noted above, the type species of *Janalychas* Kovařík, 2019a, and *Lychas* (*Endotrichus*) Tikader & Bastawade, 1983, are congeneric, hence *Janalychas* Kovařík, 2019a = *Endotrichus* Tikader & Bastawade, 1983, **syn. nov.**]

Hemilychas Hirst, 1911 as *Lychas* (*Hemilychas*) Hirst, 1911 [1 extant species]. Type species: *Lychas* (*Hemilychas*) *alexandrinus* Hirst, 1911 = *Hemilychas alexandrinus* (Hirst, 1911), by monotypy.

Himalayotityobuthus Lourenço, 1997b [2 extant species]. Type species: *Himalayotityobuthus martensi* Lourenço, 1997b, by original designation. [*Himalayotityobuthus* Lourenço, 1997b, appears to be valid, based on examination of the holotype (ZMH A1973) and paratype (MNHN RS 8236).]

Isometroides Keyserling, 1885 [1 extant species]. Type species: *Isometrus vescus* Karsch, 1880b = *Isometroides vescus* (Karsch, 1880b), by subsequent designation (Stahnke, 1972).

Isometrus Ehrenberg, in Hemprich & Ehrenberg, 1828, as *Buthus* (*Isometrus*) Ehrenberg, in Hemprich & Ehrenberg, 1828 [17 extant species, 1 *nomen dubium*].[8] Type species: *Buthus* (*Isometrus*) *filum* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Isometrus maculatus* (DeGeer, 1778), by monotypy. [Deshpande *et al.* (2024) transferred *Isometrus liaqatii* Amir & Kamaluddin, 2008, to *Odontobuthus* Vachon, 1950a, creating a new combination, *Odontobuthus liaqatii* (Amir & Kamaluddin, 2008). However, based on photographs presented by Amir (1997), *Isometrus liaqatii* Amir & Kamaluddin, 2008 = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**]

Isometrus (*Closotrichus*) Tikader & Bastawade, 1983. Type species: *Isometrus* (*Closotrichus*) *sankeriensis* Tikader & Bastawade, 1983 = *Isometrus sankeriensis* Tikader & Bastawade, 1983, by monotypy. Synonymized by Kovařík (1994).

Langxie Tang, Jia & Liu, 2023 [1 extant species]. Type species: *Langxie feti* Tang, Jia & Liu, 2023, by original designation. [The validity of this monotypic genus remains to be confirmed. It appears to differ from *Lychas* C.L. Koch, 1845, solely in the absence of retrolateral accessory denticles on the pedipalp chela fingers (Tang *et al.*, 2023). In addition to apparently being autapomorphic (and thus phylogenetically uninformative), based on the presence of retrolateral accessory denticles on the chela fingers of other Isometrinae Kraepelin, 1891, the presence or absence of accessory denticles on the chela fingers is homoplastic in other scorpion taxa, *e.g.*, Vaejovidae Thorell, 1876a.]

Lychas C.L. Koch, 1845 (part) [31 extant species]. Type species: *Lychas scutilus* C.L. Koch, 1845, by subsequent designation (Pocock, 1899c). [The correct date and designation of the type species of *Lychas* C.L. Koch, 1845, were discussed by Fet (1997a). One subspecies is synonymized (Appendix 1), based on examination of topotypes (AMNH).]

Pilumnus C.L. Koch, 1837a. Type species: *Lychas scutilus* C.L. Koch, 1845, by subsequent designation (Fet, 1997a) [Junior homonym of *Pilumnus* Leach, 1815 (Crustacea: Decapoda), replaced by *Repucha* Fet, 1997a *nec* Francke, 1985.] Synonymized by C.L. Koch (1850).

Archisometrus Kraepelin, 1891 (part). Type species: *Tityus marmoreus* C.L. Koch, 1844 = *Lychas marmoreus* (C.L. Koch, 1844), by subsequent designation (L.E. Koch, 1977). Synonymized by Pocock (1900a). [L.E. Koch (1977) stated that the type species of *Archisometrus* Kraepelin, 1891, is *Tityus marmoreus* C.L. Koch, 1844 = *Lychas marmoreus* (C.L. Koch, 1844), by subsequent designation. Fet & Lowe (2000) could not locate any references to an author who mentioned such designation and therefore considered this type species designated by L.E. Koch (1977).]

Lychas (*Distotrichus*) Tikader & Bastawade, 1983. Type species: *Archisometrus nigristernis* Pocock, 1899b = *Lychas* (*Distotrichus*) *nigristernis* (Pocock, 1899b) = *Lychas nigristernis* (Pocock, 1899b), by indication (Tikader & Bastawade, 1983: 41, fig. 113) and subsequent designation (Fet & Lowe, 2000). Synonymized by Vachon (1986). [Although a type species was not explicitly listed for subgenus *Lychas* (*Distotrichus*) Tikader & Bastawade, 1983, it was implied to be *Lychas* (*Distotrichus*) *nigristernis* (Pocock, 1899b), by reference to an illustration thereof in a key to the subgenera of *Lychas* C.L. Koch, 1845, by Tikader & Bastawade (1983: 41, fig. 113). Consequently, Fet & Lowe (2000: 158) listed *Archisometrus nigristernis* Pocock, 1899b, as "type species by indication (fig. 113)." Kovařík (2019a: 4) ignored Fet & Lowe (2000), claiming that "no type species were designated [by Tikader & Bastawade (1983)] for their none of [sic] their new subgenera", and designated "*Isometrus nigristernis* Pocock, 1899" = *Lychas nigristernis* (Pocock, 1899b), as type species of subgenus *Lychas* (*Distotrichus*). Kovařík's (2019a) action is invalid because not only did Tikader & Bastawade (1983) indicate the type species by referring to an illustration of *L. nigristernus* in their key to the subgenera but, in subsequently listing that species as type species of the subgenus, Fet & Lowe (2000) fulfilled Article 69.1 of the ICZN (1999) which states: "If an author established a nominal genus or subgenus but did not fix its type species, the first author who subsequently designates one of the originally included nominal species [Art. 67.2]

validly designates the type species of that nominal genus or subgenus (type by subsequent designation), and no later designation is valid."]

Lychas (*Alterotrichus*) Tikader & Bastawade, 1983. Type species: *Archisometrus rugosus* Pocock, 1897a = *Lychas* (*Alterotrichus*) *rugosus* (Pocock, 1897a) = *Lychas rugosus* (Pocock, 1897a), by indication (Tikader & Bastawade, 1983: 41, fig. 168) and subsequent designation (Fet & Lowe, 2000). Synonymized by Vachon (1986) and Kovařík (1995). [Although a type species was not explicitly listed for subgenus *Lychas* (*Alterotrichus*) Tikader & Bastawade, 1983, it was implied to be *Lychas* (*Alterotrichus*) *rugosus* (Pocock, 1897a), by reference to an illustration thereof in a key to the subgenera of *Lychas* C.L. Koch, 1845, by Tikader & Bastawade (1983: 41, fig. 168). Consequently, Fet & Lowe (2000: 158) listed *Archisometrus rugosus* Pocock, 1897a, as "type species by indication (fig. 168)." Kovařík (2019a: 4) ignored Fet & Lowe (2000), claiming that "no type species were designated [by Tikader & Bastawade (1983)] for their none of [sic] their new subgenera", and designated *Scorpio mucronatus* Fabricius, 1793 = *Lychas mucronatus* (Fabricius, 1793), as type species of subgenus *Lychas* (*Alterotrichus*). Kovařík's (2019a) action is invalid for the reasons listed above in the discussion of *Lychas* (*Distotrichus*) Tikader & Bastawade, 1983.]

Repucha Fet, 1997a [*nomen nudum* (Acosta & Fet, 2005)]. Synonymized by Fet (1997a). [Francke (1985) introduced this replacement name for *Pilumnus* C.L. Koch, 1837a, a junior homonym of *Pilumnus* Leach, 1815 (Crustacea: Decapoda), but did not designate a type species (Fet, 1997a). Fet (1997a) designated *Lychas scutilus* C.L. Koch, 1845, as the type species of *Repucha*, assuming the name would become available from that date and attributed to his authorship (*Repucha* Fet, 1997a). However, as pointed out by Acosta & Fet (2005), the junior synonym (*Pilumnus*) was not revalidated. Articles 11.5 and 11.6 of the ICZN (1985, 1999) indicate that to be available, a name must be treated as valid when first proposed. Moreover, Article 11.6.3 states that "a name first published after 1960 and treated as a junior synonym on that occasion cannot be made available from that act". These provisions are relevant to both versions of *Repucha*, as the long-accepted synonymy was never removed. The name *Repucha* never became available (Acosta & Fet, 2005).]

Spelaeolychas Kovařík, 2019a. Type species: *Isometrus hosei* Pocock, 1891a = *Lychas hosei* (Pocock, 1891a), by original designation. [Based on examination of the holotype (BMNH 1899.3.30.20) and nontype material (AMNH, BMNH 1889.8.5.6, 1891.8.28.1, 1892.5.29.1, 1952.9.8.489) of the type species, Prendini *et al.* (2021) doubted the validity of this monotypic genus and retained its type species in the genus *Lychas* C.L. Koch, 1845. The sole diagnostic difference between these genera appears to be the tarsal armature, *i.e.*, the ventrosubmedian rows of macrosetae on the leg telotarsi bear a few (5–7) subspiniform macrosetae in *Spelaeolychas* Kovařík, 2019a, compared with many fine, setiform macrosetae in *Lychas*. Considering that similar variation in tarsal armature is exhibited in other congeners, *e.g.*, the species of *Aegaeobuthus* Kovařík, 2019a, and *Olivierus* Farzanpay, 1987, illustrated in Kovařík's (2019a: 20) Figures 142–147, this character, taken in isolation, does not merit the creation of a monotypic genus, which will probably render *Lychas* paraphyletic. Therefore, *Spelaeolychas* Kovařík, 2019a = *Lychas* C.L. Koch, 1845, **syn. nov.**]

Lychasioides Vachon, 1974 [1 extant species]. Type species: *Lychasioides amieti* Vachon, 1974, by original designation. [Based on examination of the holotype (MNHN RS 4647) and paratypes (MNHN RS 8874–8876), this monotypic genus may be valid. It resembles *Afrolychas burdoi* (Simon, 1882b) in some respects, but with longer metasomal segments and more mottled coloration, and also has affinities with *Ananteroides* Borelli, 1911.]

Odonturus Karsch, 1879d [1 extant species]. Type species: *Odonturus dentatus* Karsch, 1879d, by original designation.

Rhoptrurus Karsch, 1886. Type species: *Odonturus dentatus* Karsch, 1879d, by original designation. [Replacement name for *Odonturus* Karsch, 1879d, believed to be a homonym of *Odontura* Rambur, 1838 (Insecta: Orthoptera). However, the two names are not homonyms (Fet & Lowe, 2000).] Synonymized by Pocock (1893b).

Pseudobuthus Pocock, 1893b. Type species: *Pseudobuthus dentatus* (Karsch, 1879d) = *Odonturus dentatus* Karsch, 1879d, by original designation. [Replacement name for *Rhoptrurus* Karsch, 1886, believed to be a homonym of *Rhoptrura* Peters, 1858 (Reptilia). However, the two names are not homonyms (Fet & Lowe, 2000).] Synonymized by Kraepelin (1899).

†***Palaeoakentrobuthus*** Lourenço & Weitschat, 2000 [1 extinct species]. Type species: †*Palaeoakentrobuthus knodeli* Lourenço & Weitschat, 2000, by original designation.

†***Palaeoananteris*** Lourenço & Weitschat, 2001 [3 extinct species]. Type species: †*Palaeoananteris ribnitiodamgartensis* Lourenço & Weitschat, 2001, by original designation.

†***Palaeobutheolus*** Lourenço, in Lourenço & Velten, 2025b [1 extinct species]. Type species: †*Palaeobutheolus andreschmidti* Lourenço, in Lourenço & Velten, 2025b.

†***Palaeoisometrus*** Lourenço & Weitschat, 2005 [1 extinct species]. Type species: †*Palaeoisometrus elegans* Lourenço and Weitschat 2005, by original designation.

†***Palaeolychas*** Lourenço & Weitschat, 1996 [2 extinct species]. Type species: †*Palaeolychas balticus* Lourenço & Weitschat, 1996, by original designation.

†***Palaeoprotobuthus*** Lourenço & Weitschat, 2000 [1 extinct species]. Type species: †*Palaeoprotobuthus pusillus* Lourenço & Weitschat, 2000, by original designation.

†***Palaeospinobuthus*** Lourenço, Henderickx & Weitschat, 2005a [1 extinct species]. Type species: †*Palaeospinobuthus cenozoicus* Lourenço, Henderickx & Weitschat, 2005a, by original designation.

†***Palaeotityobuthus*** Lourenço & Weitschat, 2000 [1 extinct species]. Type species: †*Palaeotityobuthus longiaculeus* Lourenço & Weitschat, 2000, by original designation.

Reddyanus Vachon, 1972, **stat. rev.**, as *Isometrus* (*Reddyanus*) Vachon, 1972 [37 extant species, 1 *nomen dubium*].[9] Type species: *Isometrus acanthurus* Pocock, 1899b = *Reddyanus acanthurus* (Pocock, 1899b), by indication (Fet & Lowe, 2000). [Vachon (1972) did not explicitly designate the type species of subgenus *Reddyanus* Vachon, 1972, but established the diagnostic features of the subgenus by comparing the morphology of *Isometrus acanthurus* Pocock, 1899b, to *Isometrus maculatus* (DeGeer, 1778), which, at the time, belonged to the nominotypical subgenus. Fet & Lowe (2000) considered this comparison sufficient evidence to consider *I. acanthurus* the type species of *Reddyanus* by indication. More recently, Kovařík *et al.* (2016b) elevated *Reddyanus* to the rank of genus, a move endorsed by some authors, *e.g.*, Tang (2025), but not others, *e.g.*, Lourenço (2023), Huang *et al.* (2025), and Lourenço & Ythier (2025), who retained the subgeneric rank. Following examination of nontype material (AMNH, BMNH), it is apparent that the type species and other species assigned to *Reddyanus* are not congeneric with the type species of *Isometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828, based not only on the morphological differences presented by Vachon (1972) and Kovařík *et al.* (2016b), but on molecular evidence (Štundlová *et al.*, 2022), which suggests that *Isometrus* and *Reddyanus* do not form a monophyletic group. Consequently, the decision to recognize *Reddyanus* at the rank of genus is upheld: *Reddyanus* Vachon, 1972, **stat. rev.**, resulting in a new combination (Appendix 1). Deshpande *et al.* (2024) transferred *Isometrus* (*Reddyanus*) *atherii* Amir & Kamaluddin, 2008, to *Odontobuthus* Vachon, 1950a, creating a new combination, *Odontobuthus atherii* (Amir & Kamaluddin, 2008). Based on photographs presented by Amir (1997), however, *Isometrus* (*Reddyanus*) *atherii* Amir & Kamaluddin, 2008 = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**]

Subfamily **Tityinae** Kraepelin, 1905, **stat. rev.**[10]
(19 extant genera)

Alayotityus Armas, 1973 [8 extant species]. Type species: *Alayotityus nanus* Armas, 1973, by original designation.

Androcottus Karsch, 1879a, **stat. rev.** [59 extant species].[11] Type species: *Androcottus discrepans* Karsch, 1879a, by original designation. [*Androcottus* Karsch, 1879a, was synonymized with *Tityus* C.L. Koch, 1836, by Kraepelin (1899), where it has remained since. Although not formally recognized, the group of species corresponding to the genus *Androcottus* has long been recognized as the *androcottoides* group of Mello-Leitão (1945), diagnosed by the partial or complete fusion of the ventrosubmedian carinae on metasomal segments II–IV (González-Sponga, 1996a; Borges *et al.*, 2010). In species with partial fusion, paired ventrosubmedian carinae, present in the anterior part of the segment, converge and fuse into a single ventromedian carina in the posterior part. Although Fet & Lowe (2000) doubted whether this character defines a monophyletic group, molecular phylogenetic analyses (*e.g.*, Borges *et al.*, 2010; Štundlová *et al.*, 2022) suggest otherwise. Aside from the fused ventrosubmedian carinae, large size (65–100 mm in total length), predominantly dark (infuscate) coloration in adults and mottled, yellowish coloration in immatures (Lourenço, 2006), additional morphological characters, which may be synapomorphic for the group, have also been identified (Moreno-González *et al.*, 2021): pectinal basal piece (♀) with glandular region; proximal medial lamella of pectines (♀) dilate. Therefore, consistent with the decision to recognize other former subgenera of *Tityus* at the generic rank (below), it is appropriate to also revalidate *Androcottus* Karsch, 1879a, **stat. rev.**, including all species formerly assigned to the *androcottoides*, *discrepans*, and *magnimanus* groups of *Tityus* (Lourenço, 1987a, 1988a), resulting in 58 new combinations (Appendix 1).]

Atreus Gervais, 1843, **stat. nov.**, as *Scorpio* (*Atreus*) Gervais, 1843 [61 extant species].[12] Type species: *Scorpio* (*Atreus*) *forcipula* Gervais, 1843 = *Atreus forcipula* (Gervais, 1843), **comb. nov.**, by subsequent

designation (Fet & Lowe, 2000). [Thorell (1876a) synonymized the generic name "*Atreus* C.L. Koch, 1837a" with *Isometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828. However, *Atreus* as authored by C.L. Koch (1837a) is a *lapsus calami* which was inadvertently used instead of the generic name *Opistophthalmus* C.L. Koch, 1837a (Scorpionidae Latreille, 1802), and is not available (Fet & Lowe, 2000). The name *Atreus* was first used (as a subgenus of *Scorpio* Linnaeus, 1758) in combination with a species by Gervais (1843) for several nominal species that currently belong to different genera, among them *Centruroides* Marx, 1890a, *Rhopalurus* Thorell, 1876a, *Tityus* C.L. Koch, 1836, and possibly *Isometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828. Therefore, *Atreus* Gervais, 1843, is an available genus-group name (Fet & Lowe, 2000). This name was listed (in synonymy) by Peters (1861b) as "*Atreus* Gervais (non Koch)". The name *Atreus* was not used since the 1870s, and its type species was not designated until Fet & Lowe (2000), applying Article 69(a) of the ICZN (1985), subsequently designated one of the originally included nominal species, *Scorpio* (*Atreus*) *forcipula* Gervais, 1843 = *Atreus forcipula* (Gervais, 1843), **comb. nov.**, as type species of *Atreus* Gervais, 1843. Fet & Lowe (2000) selected the type species from among the originally included nominal species of Gervais (1843) in order to avoid creating a valid senior synonym of *Centruroides* or *Rhopalurus* as would be the case, *e.g.*, if *Scorpio margaritatus* Gervais, 1841, listed by Gervais (1843), was designated as type species of *Atreus*. On the other hand, *Tityus forcipula* (Gervais, 1843), is a well-established and widely used name, and its designation did not upset any existing generic synonymies (Fet & Lowe, 2000). Although Fet & Lowe (2000) synonymized *Atreus* Gervais, 1843, with *Tityus* C.L. Koch, 1836, it was revalidated as a subgenus of the latter by Lourenço (2006), for a large group of species representing the *androcottoides*, *discrepans*, and *magnimanus* groups (Mello-Leitão, 1945), reassigned above to *Androcottus* Karsch, 1879a, **stat. rev.**, the *forcipula* and *nematochirus* groups (Mello-Leitão, 1945), and the former *asthenes* group (Mello-Leitão, 1945), renamed the *obscurus* group (*e.g.*, Moreno-González *et al.*, 2021). *Atreus* has been recovered as monophyletic, and usually reciprocally monophyletic with *Androcottus*, in several phylogenetic analyses (Román *et al.*, 2018; Moreno-González *et al.*, 2021, 2022; Štundlová *et al.*, 2022). It may be diagnosed by the following combination of characters, among others: large size (65–100 mm in total length); predominantly dark (infuscate) coloration in adults and mottled, yellowish coloration in immatures (Lourenço, 2006); ventrosubmedian carinae on metasomal segments II–IV paired, unfused; pectinal basal piece (♀) without glandular region; proximal medial lamella of pectines (♀) dilate (Moreno-González *et al.*, 2021). The evidence available justifies *Atreus* Gervais, 1843, **stat. nov.**, resulting in 61 new combinations, including one subspecies, which is elevated to the rank of species as it appears to be diagnosable from the nominotypical form: *Atreus fulvipes* (Mello-Leitão, 1945), **comb. et stat. nov.** (Appendix 1). The synonymy of *Tityus mongei* Lourenço, 1996d, with *Tityus cerroazul* Lourenço, 1986a, by Quintero & Miranda (2007) is also upheld, *i.e.*, *Tityus mongei* Lourenço, 1996d = *Atreus cerroazul* (Lourenço, 1986a).]

Brazilotityus Lourenço, 2006, **stat. nov.**, as *Tityus* (*Brazilotityus*) Lourenço, 2006 [11 extant species, 1 *nomen nudum*].[13] Type species: *Tityus* (*Brazilotityus*) *rionegrensis* Lourenço, 2006 = *Brazilotityus rionegrensis* (Lourenço, 2006), **comb. nov.**, by original designation. [Lourenço (2006) created this subgenus to accommodate three species of *Tityus* C.L. Koch, 1836, at least two of which (including the type species) appear to have affinities with other members of the *melanostictus* group (Mello-Leitão, 1945), recognized by various authors based on characters such as yellowish coloration (often with metasomal segments IV, V, and telson darker); carapace anterior margin emarginate, concave medially; large median ocelli situated anteromedially; sternite III posterior margin convex medially; subaculear tubercle well developed, spinoid (Lourenço, 1986b, 1986c, 2006; Lourenço & Von Eickstedt, 1987). Consistent with the decision to recognize other former subgenera of *Tityus* at the generic rank, and recognizing that its limits will need to be refined with further analysis, it is appropriate to also elevate *Brazilotityus* Lourenço, 2006, **stat. nov.**, tentatively including two species formerly assigned to the subgenus, as well as species of the *melanostictus* group (Lourenço & Von Eickstedt, 1987), resulting in 12 new combinations (Appendix 1).]

Caribetityus Lourenço, 1999c, **stat. rev.** [19 extant species, 1 extinct species].[14] Type species: *Tityus elii* Armas & Marcano Fondeur, 1992 = *Caribetityus elii* (Armas & Marcano Fondeur, 1992), by original designation. [*Caribetityus* Lourenço, 1999c, was synonymized with *Tityus* C.L. Koch, 1836, by Armas & Abud Antun (2004) and revalidated as a subgenus of the latter by Lourenço (2006), where it has remained since. The only published phylogenetic analyses to include exemplar species from this subgenus, by Štundlová *et al.* (2022), recovered two clades, one comprising *Tityus elii* Armas & Marcano Fondeur, 1992, and *Tityus riverai* Teruel & Sánchez, 2009, the other comprising *Tityus crassimanus* Thorell, 1876b, and *Tityus neibae* Armas, 1999. Although these clades were paraphyletic with respect to a clade comprising exemplar species of the *obscurus* group of *Tityus* (*i.e.*, *Atreus* Gervais, 1843, **stat. nov.**), the nodal support values supporting this relationship were low, *i.e.*, 25% in the Maximum Likelihood analysis and 62% in the BEAST analysis (Figure

S1), possibly due to missing loci and/or taxon sampling, whereas unpublished phylogenomic data from a more extensive taxon sample of *Caribetityus* (in prep.) recovers a monophyletic group with high support. As with other former subgenera of *Tityus*, this distinct taxon, diagnosed among other characters by small to medium size (20–50 mm in total length), coloration often mottled, yellowish, subaculear tubercle reduced or absent, spinoid, if present, and pectinal fulcra present (Lourenço, 2006), merits recognition at the generic rank and is revalidated accordingly: *Caribetityus* Lourenço, 1999c, **stat. rev.** In addition to *Caribetityus elii* (Armas & Marcano Fondeur, 1992), and *Caribetityus quisqueyanus* (Armas, 1982), originally assigned to the genus by Lourenço (1999c), eighteen new combinations are proposed, representing all species occurring in the Greater Antilles (Appendix 1).]

Centruroides Marx, 1890a [107 extant species].[15] Type species: *Buthus exilicauda* Wood, 1863 = *Centruroides exilicauda* (Wood, 1863), by monotypy. [The name *Centruroides* was introduced by Marx (1890a) for two species, *Centruroides exilicauda* (Wood, 1863), and *Centruroides luctifer* Marx, 1890a. No description was published for the latter, which is a *nomen nudum* (Fet & Lowe, 2000). Therefore, *Centruroides exilicauda* (Wood, 1863) became the type species by monotypy. As Marx (1890a) also used the name *Centrurus* Ehrenberg, in Hemprich & Ehrenberg, 1829, *Centruroides* Marx, 1890a, was not introduced as a replacement name for *Centrurus*. The name *Centrurus* was incorrectly used for many years to denote species of *Centruroides*. However, these two names are not synonyms (Fet & Lowe, 2000). The type species of *Centrurus* was not originally designated. Thorell (1876a) designated *Androctonus biaculeatus* Lucas, 1835 = *Centruroides gracilis* (Latreille, 1804) as type species of *Centrurus*. However, the priority in type designation belongs to C.L. Koch (1838), who first used the name in combination with a description of a species, *Centrurus galbineus* C.L. Koch, 1838. As noted by Fet & Lowe (2000), the latter is a junior synonym of *Heterometrus longimanus* (Herbst, 1800). Therefore, *Centrurus* Ehrenberg, in Hemprich & Ehrenberg, 1829, is a junior synonym of *Heterometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828 (Scorpionidae Latreille, 1802), not a *nomen nudum* as stated by Francke (1985). Two subspecies are elevated to the rank of species (Appendix 1), based on examination of topotypes (AMNH).]

Chaneke Francke, Teruel & Santibáñez-Lopez, 2014 [4 extant species]. Type species: *Chaneke fogoso* Francke, Teruel & Santibáñez-Lopez, 2014, by original designation.

Heteroctenus Pocock, 1893d [7 extant species].[16] Type species: *Scorpio junceus* Herbst, 1800 = *Heteroctenus junceus* (Herbst, 1800), by subsequent designation (Pocock, 1902a).

Ischnotelson Esposito, Yamaguti, Souza, Pinto-da-Rocha & Prendini, 2017 [2 extant species]. Type species: *Rhopalurus guanambiensis* Lenarducci, Pinto-da-Rocha & Lucas, 2005 = *Ischnotelson guanambiensis* (Lenarducci, Pinto-da-Rocha & Lucas, 2005), by original designation.

Jaguajir Esposito, Yamaguti, Souza, Pinto-da-Rocha & Prendini, 2017 [3 extant species].[17] Type species: *Androctonus agamemnon* C.L. Koch, 1839b = *Jaguajir agamemnon* (C.L. Koch, 1839b), by original designation.

Mesotityus González-Sponga, 1981b [26 extant species, 1 *nomen nudum*].[18] Type species: *Mesotityus vondangeli* González-Sponga, 1981b, by monotypy.

Phassus Thorell, 1876a. Type species: *Phassus columbianus* Thorell, 1876a = *Mesotityus columbianus* (Thorell, 1876a), by original designation. [Junior homonym of *Phassus* Walker, 1856 (Insecta: Lepidoptera).]

Pucha Francke, 1985 [*nomen nudum* (Acosta & Fet, 2005)]. [Francke (1985) introduced this replacement name for *Phassus* Thorell, 1876a, which was synonymized with *Tityus* C.L. Koch, 1836, by Kraepelin (1899). However, as pointed out by Acosta & Fet (2005), the junior synonym (*Phassus*) was not revalidated. Articles 11.5 and 11.6 of the ICZN (1985, 1999) indicate that to be available, a name must be treated as valid when first proposed. Moreover, Article 11.6.3 states that "a name first published after 1960 and treated as a junior synonym on that occasion cannot be made available from that act". As the long-accepted synonymy was never removed, the name *Pucha* Francke, 1985, never became available (Acosta & Fet, 2005).]

Tityus (*Archaeotityus*) Lourenço, 2006. Type species: *Tityus columbianus* (Thorell, 1876a) = *Tityus* (*Archaeotityus*) *columbianus* (Thorell, 1876a) = *Mesotityus columbianus* (Thorell, 1876a), **comb. nov.**, by original designation. [The group of species assigned to *Tityus* (*Archaeotityus*) Lourenço, 2006, long recognized as the *clathratus* group of *Tityus* C.L. Koch, 1836, was recovered as monophyletic in several phylogenetic analyses (*e.g.*, Borges *et al.*, 2010; Moreno-González *et al.*, 2019, 2021, 2022; Štundlová *et al.*, 2022). These species share the following combination of characters (Lourenço, 2006; Moreno-González *et al.*, 2019, 2021): relatively small size (20–40 mm in total length); mottled, yellowish coloration; prominent, rhomboid subaculear tubercle; pectinal basal piece

(♀) with glandular region in anteromedial third; proximal medial lamella of pectines (♀) not dilate; telotarsi ventral surfaces with irregularly distributed macrosetae. Based on the diagnosis and examination of nontype material (AMNH), *Tityus* (*Archaeotityus*) *clathratus* C.L. Koch, 1844, and the type species, *Tityus* (*Archaeotityus*) *columbianus* (Thorell, 1876a), are both congeneric with the type species of *Mesotityus* González-Sponga, 1981b, hence *Tityus* (*Archaeotityus*) Lourenço, 2006 = *Mesotityus* González-Sponga, 1981b, **syn. nov.**, resulting in 26 new combinations (Appendix 1).

Microtityus Kjellesvig-Waering, 1966b [14 extant species]. Type species: *Microtityus rickyi* Kjellesvig-Waering, 1966b, by original designation.

Parvabsonus Armas, 1974a, **stat. nov.**, as *Microtityus* (*Parvabsonus*) Armas, 1974a [27 extant species, 1 extinct species]. Type species: *Microtityus* (*Parvabsonus*) *jaumei* Armas, 1974a = *Parvabsonus jaumei* (Armas, 1974a), **comb. nov.**, by original designation. [Based on examination of nontype material (AMNH) of the type species, this morphologically distinct subgenus is elevated to the rank of genus, *Parvabsonus* Armas, 1974a, **stat. nov.**, resulting in 28 new combinations (Appendix 1). It may be diagnosed from *Microtityus* Kjellesvig-Waering, 1966b, by the following combination of characters (Armas, 1974a: 2, 12–15, Figures 1, 5–6): median ocular tubercle situated anteromedially on carapace, rather than medially as in *Microtityus*; tergites with three carinae compared to five carinae (three primary carinae and two accessory carinae) in *Microtityus*; sternite V (♂) with single smooth hyaline surface posteriorly, subtriangular or cordiform in shape, compared with three separate, rounded hyaline surfaces posteriorly in *Microtityus*; prolateral carinae of pedipalp femur without spiniform granules as in *Microtityus*; prolateral process of pedipalp patella obsolete, granular rather than pronounced, with prominent spiniform tubercles, as in *Microtityus*; pedipalp chela trichobothrium *db* situated prolateral to *dt*, but aligned with *dt* in *Microtityus*; patella of legs III and IV slender, scarcely wider than femur, but broad, much wider than femur in *Microtityus*.]

Physoctonus Mello-Leitão, 1934a [3 extant species]. Type species: *Physoctonus physurus* Mello-Leitão, 1934a = *Physoctonus debilis* (C.L. Koch, 1840), by original designation.

Rhopalurus Thorell, 1876a [3 extant species]. Type species: *Rhopalurus laticauda* Thorell, 1876a, by original designation.

Tityopsis Armas, 1974b, as *Tityus* (*Tityopsis*) Armas, 1974b [7 extant species]. Type species: *Tityus inexpectatus* Moreno, 1940 = *Tityopsis inexpectata* (Moreno, 1940), by original designation.

Tityus C.L. Koch, 1836 [56 extant species, 2 extinct species, 1 *nomen dubium*].[19] Type species: *Scorpio bahiensis* Perty, 1833 = *Tityus bahiensis* (Perty, 1833), by monotypy. [Lourenço (1980) considered *Tityus thelyacanthus* Mello-Leitão, 1933, closer to *Tityus fasciolatus* Pessôa, 1935 than to *Tityus charreyroni* Vellard, 1932, as suggested by Mello-Leitão (1933), but later (Lourenço, 2019) synonymized *T. thelyacanthus* with the latter. On the other hand, Almeida (2010) proposed to synonymize *T. fasciolatus* with *T. thelyacanthus*. As both *T. charreyroni* and *T. fasciolatus* were originally described as subspecies of *Tityus trivittatus* Kraepelin, 1898b, it is appropriate to also synonymize *T. fasciolatus* with *T. charreyroni* (Appendix 1). Two other synonyms, first proposed in the unpublished thesis of Almeida (2010), are also implemented: *Tityus bahiensis eickstedtae* Lourenço, 1982a = *Tityus bahiensis* (Perty, 1833), **syn. nov.**; *Tityus confluens bodoquena* Lourenço, Cabral & Bruehmueller Ramos, 2004a = *Tityus confluens* Borelli, 1899a, **syn. nov.**]

Troglorhopalurus Lourenço, Baptista & Giupponi, 2004b [3 extant species]. Type species: *Troglorhopalurus translucidus* Lourenço, Baptista & Giupponi, 2004b, by original designation.

Zabius Thorell, 1893 [3 extant species]. Type species: *Isometrus fuscus* Thorell, 1876b = *Zabius fuscus* (Thorell, 1876b), by original designation.

Family †**Palaeoburmesebuthidae** Lourenço, 2015b
(3 extinct genera)

†***Betaburmesebuthus*** Lourenço & Beigel, 2015 [12 extinct species]. Type species: †*Betaburmesebuthus kobberti* Lourenço & Beigel, 2015, by original designation.

†*Spinoburmesebuthus* Lourenço, in Lourenço & Velten, 2017. Type species: †*Spinoburmesebuthus pohli* Lourenço, in Lourenço & Velten, 2017 = †*Betaburmesebuthus pohli* (Lourenço, in Lourenço & Velten, 2017), by original designation. Synonymized by Xuan *et al.* (2023).

†***Palaeoburmesebuthus*** Lourenço, 2002a [3 extinct species]. Type species: †*Palaeoburmesebuthus grimaldii* Lourenço, 2002a, by original designation.

†***Paranotaburmesebuthus*** Lourenço, in Lourenço & Velten, 2024a [1 extinct species]. Type species: †*Paranotaburmesebuthus schmidti* Lourenço, in Lourenço & Velten, 2024a, by original designation.

Family †**Protobuthidae** Lourenço & Gall, 2004
(1 extinct genus)

†***Protobuthus*** Lourenço & Gall, 2004 [2 extinct species]. Type species: †*Protobuthus elegans* Lourenço & Gall, 2004, by original designation.

Superfamily **Chaeriloidea** Pocock, 1893b
(1 extant family)

Family **Chaerilidae** Pocock, 1893b
(1 extant subfamily, 1 extinct subfamily)

Subfamily **Chaerilinae** Pocock, 1893b
(1 extant genus)

Chaerilus Simon, 1877 [58 extant species, 1 *nomen dubium*].[20] Type species: *Chaerilus variegatus* Simon, 1877, by monotypy.

Chelomachus Thorell, 1889. Type species: *Chelomachus birmanicus* Thorell, 1889 = *Chaerilus birmanicus* (Thorell, 1889), by original designation. Synonymized by Kraepelin (1894).

Uromachus Pocock, 1890c. Type species: *Uromachus pictus* Pocock, 1890c = *Chaerilus pictus* (Pocock, 1890c), by monotypy. Synonymized by Kraepelin (1894).

Chaerilourencous Rossi, 2018a. Type species: *Chaerilus sabinae* Lourenço, 1995d, by original designation. [This genus was created for two eyeless, depigmented troglomorphic species originally assigned to *Chaerilus* Simon, 1877. Prendini *et al.* (2021) doubted its validity and retained the species in *Chaerilus*. Based on the generic diagnosis as well examination of the holotypes (MHNG, MNHN) of both species by S.F. Loria (pers. comm.), this putative genus differs from *Chaerilus* solely in troglomorphies, *e.g.*, loss of ocelli and pigmentation, and attenuation of the pedipalps and legs, homoplastic characters that do not merit recognition at generic rank (Volschenk & Prendini, 2008; Prendini *et al.*, 2021). Therefore, *Chaerilourencous* Rossi, 2018a = *Chaerilus* Simon, 1877, **syn. nov.**, and the two species are returned to *Chaerilus*: *Chaerilus sabinae* Lourenço, 1995d; *Chaerilus telnovi* Lourenço, 2009.]

Subfamily †**Electrochaerilinae**
Santiago-Blay, Fet, Soleglad & Anderson, 2004a
(1 extant genus)

†***Electrochaerilus*** Santiago-Blay, Fet, Soleglad & Anderson, 2004a [1 extinct species]. Type species: †*Electrochaerilus buckleyi* Santiago-Blay, Fet, Soleglad & Anderson, 2004a, by original designation.

Superfamily **Pseudochactoidea** Gromov, 1998
(1 extant family)

Family **Pseudochactidae** Gromov, 1998[21]
(3 extant subfamilies, 1 extinct subfamily)

Subfamily †**Chaerilobuthinae** Lourenço & Beigel, 2011
(1 extinct genus)

†***Chaerilobuthus*** Lourenço & Beigel, 2011 [17 extinct species]. Type species: †*Chaerilobuthus complexus* Lourenço & Beigel, 2011, by original designation.

†*Chaeriloiurus* Lourenço, in Lourenço & Velten, 2020. Type species: †*Chaeriloiurus brigittemuellerae* Lourenço, in Lourenço & Velten, 2020 = †*Chaerilobuthus brigittemuellerae* (Lourenço, in Lourenço & Velten, 2020), by original designation. Synonymized by Xuan *et al.* (2025b).

†*Serratochaerilobuthus* Lourenço, in Lourenço & Velten, 2024b. Type species: †*Serratochaerilobuthus schmidti* Lourenço, in Lourenço & Velten, 2024b = †*Chaerilobuthus schmidti* (Lourenço, in Lourenço & Velten, 2024b), by original designation. Synonymized by Xuan *et al.* (2025b).

Subfamily **Pseudochactinae** Gromov, 1998
(2 extant genera)

Pseudochactas Gromov, 1998 [2 extant species]. Type species: *Pseudochactas ovchinnikovi* Gromov, 1998, by original designation.

Qianxie Tang, 2022a [1 extant species]. Type species: *Qianxie solegladi* Tang, 2022a, by original designation.

Subfamily **Troglokhammouaninae**
Prendini, Ehrenthal & Loria, 2021
(1 extant genus)

Troglokhammouanus Lourenço, 2007b [1 extant species]. Type species: *Troglokhammouanus steineri* Lourenço, 2007b, by original designation.

Subfamily **Vietbocapinae** Lourenço, 2012b
(2 extant genera)

Aemngvantom Prendini, Ehrenthal & Loria, 2021 [2 extant species]. Type species: *Vietbocap lao* Lourenço, 2012b = *Aemngvantom lao* (Lourenço, 2012b), by original designation.

Vietbocap Lourenço & Pham, 2010 [1 extant species]. Type species: *Vietbocap canhi* Lourenço & Pham, 2010, by original designation.

Superfamily †**Sucinlourencoidea** Rossi, 2015a
(1 extinct family)

Family †**Sucinlourencoidae** Rossi, 2015a
(1 extinct genus)

†***Sucinlourencous*** Rossi, 2015a [1 extinct species]. Type species: †*Sucinlourencous adrianae* Rossi, 2015a, by original designation.

Parvorder **Iurida** Soleglad & Fet, 2003
(8 extant superfamilies)

Superfamily **Bothriuroidea** Simon, 1880
(1 extant family)

Family **Bothriuridae** Simon, 1880
(2 extant subfamilies)

Subfamily **Bothriurinae** Simon, 1880
(15 extant genera)

Andibothriurus Maury, 1975a, **stat. nov.**, as *Bothriurus* (*Andibothriurus*) Maury, 1975a [19 extant species]. Type species: *Bothriurus coriaceus* Pocock, 1893a = *Bothriurus* (*Andibothriurus*) *coriaceus* (Pocock, 1893a) = *Andibothriurus coriaceus* (Pocock, 1893a), **comb. nov.**, by subsequent designation (Maury, 1975a). [Subgenus *Andibothriurus* Bücherl, San Martin, Flores da Cunha, Matthiessen, Zimber & Bücherl, 1963, was described by Bücherl *et al.* (1963) without designating a type species and is therefore not available, according to Article 13b of the ICZN (1985, 1999). The name *Andibothriurus* is available under the authorship of Maury (1975a), who subsequently designated *Bothriurus coriaceus* Pocock, 1893a, as type species (Lowe & Fet, 2000). Based on Maury's (1975a) diagnosis, examination of nontype material of the type species (AMNH), and the phylogenetic analyses of Prendini (2000, 2003), Ochoa (2004), and Mattoni & Prendini (2007), this subgenus merits recognition at the rank of genus, hence *Andibothriurus* Maury, 1975a, **stat. nov.**, resulting in nineteen new combinations (Appendix 1). Among other characters, *Andibothriurus* differs from *Bothriurus* Peters, 1861b, as follows: cheliceral movable finger with two subdistal teeth; pedipalp chela trichobothrium *Esb* situated between trichobothria Eb_1 and Eb_2; metasomal segment V, ventrosubmedian carinae curving posteriorly towards ventrolateral carinae, inclined ca. 45º, but not merging medially; hemispermatophore distal lamina oblique relative to trunk with distal edge directed anteriorly, frontal lamina absent, internal lobe with single ectal process, adjacent to lamina base, pedicel oval and aligned with axis of trunk (Maury, 1975a; Prendini, 2000, 2003; Ochoa, 2004; Mattoni & Prendini, 2007).]

Bothriurus Peters, 1861b [33 extant species]. Type species: *Brotheas bonariensis* C.L. Koch, 1842 = *Bothriurus bonariensis* (C.L. Koch, 1842), by original designation. [One subspecies, which appears to be diagnosable from the nominotypical form, is elevated to the rank of species and another, which does not, is synonymized (Appendix 1).]

Brazilobothriurus Lourenço & Monod, 2000. Type species: *Brazilobothriurus pantanalensis* Lourenço & Monod, 2000 = *Bothriurus pantanalensis* (Lourenço & Monod, 2000), **comb. nov.**, by original designation. [Prendini (2003) doubted the validity of this monotypic genus which, based on the original diagnosis and examination of paratypes (MNHN RS 8691, ZMH A69/01), differs from *Bothriurus* Peters, 1861b, solely by the presence of nine *V* trichobothria on the pedipalp chela, a character that is highly variable in many scorpion genera, including *Bothriurus*, most species of which have five or six *V* trichobothria (Lamoral, 1979; Stockwell, 1989; Prendini, 2001b, 2003; Prendini & Wheeler, 2005; Amiri Ghanat Saman *et al.*, 2025). *Bothriurus s. str.* was rendered paraphyletic by *Brazilobothriurus* Lourenço & Monod, 2000, in the phylogenetic analysis of Mattoni & Prendini (2007), reinforcing the conclusion that they are congeneric. Therefore, *Brazilobothriurus* Lourenço & Monod, 2000 = *Bothriurus* Peters, 1861b, **syn. nov.**, resulting in *Bothriurus pantanalensis* (Lourenço & Monod, 2000), **comb. nov.**]

Brachistosternus Pocock, 1893d [49 extant species, 3 *nomina dubia*]. Type species: *Scorpio ehrenbergii* Gervais, 1841 = *Brachistosternus ehrenbergii* (Gervais, 1841), by original designation.

Brachistosternus (*Leptosternus*) Maury, 1973a. Type species: *Telegonus weijenberghii* Thorell, 1876b = *Brachistosternus* (*Leptosternus*) *weijenberghii* (Thorell, 1876b) = *Brachistosternus weijenberghi* (Thorell, 1876b), by original designation. Synonymized by Ojanguren-Affilastro & Ramírez (2009). [Acosta & Fet (2005) discussed the spelling of the type species, as follows. Thorell (1876b) dedicated *Telegonus Weijenberghii* to Prof. Hendrik Weyenbergh, who sent the type specimen from Argentina. Lowe & Fet (2000) noted that the species name should be constructed using the correct spelling of the original name and interpreted that such an emendation was made by Thorell (1877, 1878) as the species and the personal names were spelled *weyenberghii* and Weyenbergh, respectively. Lowe & Fet (2000) demonstrated that most subsequent authors ignored Thorell's (1877, 1878) correction, and at least 30 citations followed the original spelling using 'ij' instead of 'y'. 'Prof. Weijenbergh' is consistently mentioned in the original publication (Thorell, 1876b). Weyenbergh initially spelled his name 'Weijenbergh' and later changed it to

'Weyenbergh'. As editor of both journals in 1877 and 1878, Weyenbergh may have corrected the spellings of his name without Thorell's knowledge (Acosta & Fet, 2005). Following Article 32.5.1 of the ICZN (1985, 1999), only evidence of inadvertent error in the original publication allows an original spelling to be amended. According to Acosta & Fet (2005), this is not the case with *Telegonus weijenberghii*, as Thorell was consistent. Thorell's (1877, 1878) subsequent corrections are not evidence of the mistake as they represent an external source (precluded by Article 32.5.1) and are not 'emendations' (they do not include an explicit statement of the correction) but 'incorrect subsequent spellings' (Article 33.3). The proposal of Lowe & Fet (2000) was explicitly intentional; therefore, according to Acosta & Fet (2005), *Brachistosternus weyenberghii* Lowe & Fet, 2000, is an unjustified emendation, and a junior objective synonym of *Telegonus weijenberghii* Thorell, 1876b. This emendation was adopted by Ojanguren-Affilastro (2002a, 2003a, 2004), whereas Ochoa & Acosta (2002), Ochoa (2003) and Acosta (2005) maintained the original spelling. Additionally, Acosta & Fet (2005) argued that the spelling *weijenberghi* should be retained because of being more widespread. Another part of the name that experienced independent variation is the genitive ending 'ii' as in the original, versus 'i', in most subsequent citations (Lowe & Fet, 2000). All spellings that use the genitive with one 'i' are incorrect subsequent spellings (Article 33.4), but because of being more used, the single 'i' remains the correct ending (Acosta & Fet, 2005).]

Brachistosternus (*Ministernus*) Francke, 1985. Type species: *Telegonus ferrugineus* Thorell, 1876b = *Brachistosternus* (*Ministernus*) *ferrugineus* (Thorell, 1876b) = *Brachistosternus ferrugineus* (Thorell, 1876b), by original designation. [Replacement name for *Microsternus* Maury, 1973a. Although this subgenus was monophyletic in the phylogenetic analyses of Prendini (2000, 2003), Mattoni & Prendini (2007), and Ojanguren-Affilastro *et al.* (2016), its continued recognition appears unjustified following the synonymy of *Brachistosternus* (*Leptosternus*) Maury, 1973a, with the nominotypical form by Ojanguren-Affilastro & Ramírez (2009), and it is synonymized accordingly: *Brachistosternus* (*Ministernus*) Francke, 1985 = *Brachistosternus* Pocock, 1893d, **syn. nov.**]

Brachistosternus (*Microsternus*) Maury, 1973a. Type species: *Telegonus ferrugineus* Thorell, 1876b = *Brachistosternus* (*Microsternus*) *ferrugineus* (Thorell, 1876b) = *Brachistosternus ferrugineus* (Thorell, 1876b), by original designation. [Junior homonym of *Microsternus* Lewis, 1887 (Insecta: Coleoptera).]

Centromachetes Lönnberg, 1897 [3 extant species]. Type species: *Centromachus pocockii* Kraepelin, 1894 = *Centromachetes pocockii* (Kraepelin, 1894), by monotypy. [Replacement name for *Centromachus* Kraepelin, 1894.]

Centromachus Kraepelin, 1894. Type species: *Centromachus pocockii* Kraepelin, 1894 = *Centromachetes pocockii* (Kraepelin, 1894), by monotypy. [Junior homonym of †*Centromachus* Thorell & Lindström, 1885 (Arachnida: Scorpiones).] Synonymized by Lönnberg (1897).

Cercophonius Peters, 1861b [6 extant species]. Type species: *Scorpio* (*Telegonus*?) *squama* Gervais, 1843 = *Cercophonius squama* (Gervais, 1843), by monotypy.

Acanthochirus Peters, 1861b. Type species: *Acanthochirus testudinarius* Peters, 1861b = *Cercophonius squama* (Gervais, 1843), by monotypy. Synonymized by Thorell (1876a). [Two generic names, *Acanthochirus* Peters, 1861b, and *Cercophonius* Peters, 1861b, were published on the same date in the same work. The first reviser (Thorell, 1876a) selected the name, *Cercophonius*, for the genus.]

Mauryius Ojanguren-Affilastro & Mattoni, 2017 [1 extant species]. Type species: *Mauryius cuyanus* Ojanguren-Affilastro & Mattoni, 2017, by original designation.

Orobothriurus Maury, 1975b [15 extant species]. Type species: *Bothriurus alticola* Pocock, 1899d = *Orobothriurus alticola* (Pocock, 1899d), by original designation.

Pachakutej Ochoa, 2004 [6 extant species]. Type species: *Orobothriurus iskay* Acosta & Ochoa, 2001 = *Pachakutej iskay* (Acosta & Ochoa, 2001), by original designation.

Phoniocercus Pocock, 1893a [2 extant species]. Type species: *Phoniocercus pictus* Pocock, 1893a, by monotypy. [Pocock (1893b) created a monotypic genus for a single specimen in the Keyserling collection misidentified as "*Cercophonius chilensis*". San Martín & Cekalovic (1968) revised the generic diagnosis, redescribed the type species, and designated a neotype (Lowe & Fet, 2000).]

Rumikiru Ojanguren-Affilastro, Mattoni, Ochoa & Prendini, 2012 [2 extant species]. Type species: *Orobothriurus lourencoi* Ojanguren-Affilastro, 2003b = *Rumikiru lourencoi* (Ojanguren-Affilastro, 2003b), by original designation.

Tehuankea Cekalovic, 1973 [1 extant species]. Type species: *Tehuankea moyanoi* Cekalovic, 1973, by original designation.

Thestylus Simon, 1880 [2 extant species, 1 *nomen dubium*]. Type species: *Cercophonius glasioui* Bertkau, 1880 = *Thestylus glasioui* (Bertkau, 1880), by original designation.

Telegonus C.L. Koch, 1836. Type species: *Telegonus versicolor* C.L. Koch, 1836 = ?*Thestylus glasioui* (Bertkau, 1880), by monotypy. [Junior homonym of *Telegonus* Hübner, 1816 (Insecta: Lepidoptera).] Synonymized by Kraepelin (1899).

Maecocentrus Karsch, 1880a. [Replacement name for *Telegonus* C.L. Koch, 1836. Later the same year, Simon (1880) referred to *Maecocentrus* Karsch, 1880a, while introducing genus *Thestylus* Simon, 1880. Although it is the senior synonym of *Thestylus*, *Maecocentrus* has not been used since the 1880s (Lowe & Fet, 2000).]

Timogenes Simon, 1880 [6 extant species]. Type species: *Timogenes sumatranus* Simon, 1880, by original designation.

Timogenes (*Latigenes*) Maury, 1975c. Type species: *Timogenes* (*Latigenes*) *mapuche* Maury, 1975c = *Timogenes mapuche* (Maury, 1975c), by original designation. Synonymized by Maury (1982).

Transbothriurus Lowe & Fet, 2000 [*nomen nudum* (Acosta & Fet, 2005)]. Type species: *Scorpio* (*Buthus*) *dorbignyi* Guérin Méneville, 1843 = *Timogenes dorbignyi* (Guérin Méneville, 1843), by original designation. Synonymized by Lowe & Fet (2000). [Subgenus *Bothriurus* (*Transbothriurus*) Mello-Leitão, 1945 was established by Mello-Leitão (1945) for two species, *Bothriurus dorbignyi* Guérin Méneville, 1843 = *Timogenes dorbignyi* (Guérin Méneville, 1843) and *Bothriurus elegans* Mello-Leitão, 1931a = *Timogenes elegans* (Mello-Leitão, 1931a), without designating a type species, and without an explicit diagnosis. Bücherl (1959) proposed that *B. elegans* was a junior synonym of *B. dorbignyi*, reducing the subgenus to a single species. However, as noted by Acosta & Fet (2005), the procedure of 'elimination' does not constitute a valid designation of type species (Article 69.4 of the ICZN, 1985, 1999), so the name *Transbothriurus* remained unavailable. Bücherl *et al.* (1963) subsequently provided a diagnosis of the subgenus and continued to assign authorship to Mello-Leitão (1945). Maury & San Martín (1973) discovered that an available name already existed, *i.e.*, *Timogenes* Simon, 1880, and synonymized *Transbothriurus* with it, without acknowledging that the former was still unavailable according to Article 13b. Lowe & Fet (2000) noticed the status of *Transbothriurus*, and proposed *Scorpio* (*Buthus*) *dorbignyi* Guérin Méneville, 1843 = *Timogenes dorbignyi* (Guérin Méneville, 1843), as the type species, to make it available. Lowe & Fet (2000) never used *Transbothriurus* as valid, as it remained a junior synonym of *Timogenes*, in accordance with the preceding taxonomic concepts. Therefore, as noted by Acosta & Fet (2005), *Transbothriurus* was not made available (Article 11.6.3).]

Urophonius Pocock, 1893a [17 extant species]. Type species: *Urophonius jheringii* Pocock, 1893a = *Urophonius iheringi* Pocock, 1893a, by original designation. [Pocock (1893a) named *Urophonius Jheringii* honoring the German zoologist H. von Ihering, which he spelled 'Jhering'. As noted by Acosta & Fet (2005), in the absence of evidence to the contrary, it should be assumed that Pocock (1893a) believed that this was the correct spelling. The species was considered a synonym of *Urophonius brachycentrus* (Thorell, 1876b) for over thirty years (Lowe & Fet, 2000), during which time, the original spelling was used in some works (*e.g.*, Pocock, 1898a; Kraepelin, 1899), whereas the initial letter was corrected to *Iheringii* in others (*e.g.*, Kraepelin, 1894). Mello-Leitão (1931a) revalidated the name, spelling it as *iheringi* with a single 'i' genitive instead of double 'ii'. No statement renders the actions of Kraepelin (1894) or Mello-Leitão (1931a) as emendations, hence they are incorrect subsequent spellings (Acosta & Fet, 2005). The corrected version of the name, *iheringi*, was widely adopted. From 1931 to 1996 most authors followed Mello-Leitão (1931a): Lowe & Fet (2000) listed sixteen citations for *iheringi*, by seven authors of that period, whereas only Acosta (1988) reinstated the original spelling. As the spelling *iheringi* is in prevailing usage, Acosta & Fet (2005) argued for it to be maintained as the 'correct spelling' (Articles 33.3.1 and 33.4). Lowe & Fet (2000) adopted *iheringii* as valid, but the prevaling usage also affects the modification of the genitive (correct ending with a single 'i').]

Iophorus Penther, 1913. Type species: *Iophorus exochus* Penther, 1913 = *Urophonius exochus* (Penther, 1913), by monotypy. Synonymized by San Martín (1965).

Iophoroxenus Mello-Leitão, 1932. Type species: *Iophoroxenus exilimanus* Mello-Leitão, 1932 = *Urophonius granulatus* Pocock, 1898a, by original designation. Synonymized by Maury (1973b).

Vachonia Abalos, 1954 [1 extant species]. Type species: *Vachonia martinezi* Abalos, 1954, by original designation.

Subfamily **Lisposominae** Lawrence, 1928
(2 extant genera)

Brandbergia Prendini, 2003 [1 extant species]. Type species: *Brandbergia haringtoni* Prendini, 2003, by original designation. [The validity of this monotypic genus, synonymized with *Lisposoma* Lawrence, 1928, by Fet *et al.* (2004) based on a flawed analysis, was upheld by Prendini & Wheeler (2005) and subsequent authors (*e.g.*, Francke, 2019) based on the original analysis of Prendini (2003) and the subsequent analysis of Mattoni & Prendini (2007).]

Lisposoma Lawrence, 1928 [2 extant species]. Type species: *Lisposoma elegans* Lawrence, 1928, by monotypy.

Superfamily **Caraboctonoidea** Kraepelin, 1905
(1 extant family)

Family **Caraboctonidae** Kraepelin, 1905
(2 extant genera)

Caraboctonus Pocock, 1893a (part) [1 extant species]. Type species: *Caraboctonus keyserlingi* Pocock, 1893a, by monotypy.

Hadruroides Pocock, 1893b [25 extant species]. Type species: *Hadrurus charcasus* Karsch, 1879b = *Hadruroides charcasus* (Karsch, 1879b), by original designation.

Hadruroides (*Lourencoides*) Rossi, 2014a. Type species: *Hadruroides adrianae* Rossi, 2012, by original designation. [*Hadruroides* (*Lourencoides*) Rossi, 2014a was differentiated from the nominotypical subgenus primarily by smaller size, ranging from 30–60 mm, relatively slender, smooth and acarinate pedipalp chela, and lower pectinal tooth counts. However, the monophyly of this subgenus was not tested in a phylogenetic analysis and the putative diagnostic characters are known to vary considerably among species of *Hadruroides* (*e.g.*, Ochoa & Prendini, 2010). For these reasons, pending compelling evidence to the contrary, this subgenus is considered congeneric with the nominotypical subgenus, *i.e.*, *Hadruroides* (*Lourencoides*) Rossi, 2014a = *Hadruroides* Pocock, 1893b, **syn. nov.**, resulting in five new combinations (Appendix 1).]

Superfamily **Chactoidea** Pocock, 1893b[22]
(9 extant families, 1 subfossil family, 2 extinct families)

Family **Akravidae** Levy, 2007
(1 subfossil genus)

Akrav Levy, 2007 [1 subfossil species]. Type species: *Akrav israchanani* Levy, 2007, by original designation.

Family **Anuroctonidae** Santibáñez-López, Ojanguren-Affilastro, Graham & Sharma, 2023[23]
(1 extant genus)

Anuroctonus Pocock, 1893b [3 extant species]. Type species: *Centrurus phaiodactylus* Wood, 1863 = *Anuroctonus phaiodactylus* (Wood, 1863), by monotypy. [One subspecies is elevated to the rank of species (Appendix 1), based on examination of topotypes (AMNH).]

Oncocentrus Thorell, 1893. Type species: *Centrurus phaiodactylus* Wood, 1863 = *Oncocentrus phaiodactylus* (Wood, 1863) = *Anuroctonus phaiodactylus* (Wood, 1863), by monotypy. Synonymized by Kraepelin (1899).

Family **Belisariidae** Lourenço, 1998a
(2 extant genera)

Belisarius Simon, 1879 [2 extant species]. Type species: *Belisarius xambeui* Simon, 1879, by monotypy.

Sardoscorpius Tropea & Onnis, 2020 [1 extant species]. Type species: *Sardoscorpius troglophilus* Tropea & Onnis, 2020, by original designation.

Family **Chactidae** Pocock, 1893b
(2 extant subfamilies, 1 extinct genus *incertae sedis*)

Incertae sedis

†***Araripescorpius*** Campos, 1986 [1 extinct species]. Type species: †*Araripescorpius ligabuei* Campos, 1986, by original designation.

Subfamily **Chactinae** Pocock, 1893b[24]
(13 extant genera)

Antridiscalceatus Rossi, 2018b [1 extant species]. Type species: *Taurepania trezzi* Vignoli & Kovařík, 2003 = *Antridiscalceatus trezzi* (Vignoli & Kovařík, 2003), by original designation. [In the original description of this species from the summit of Auyan Tepui, Venezuela, Vignoli & Kovařík (2003: 130, 131) noted that "some of the characters … are so unique that they invite the possibility of a new genus," and referred to the absence of both pedal spurs, in particular, a character ultimately disregarded as an adaptation to life in caves based on its variable occurrence among the troglomorphic species of Typhlochactidae Mitchell, 1971. The species was originally placed in *Taurepania* González-Sponga, 1978, on account of its minute, round stigmata (spiracles) and the absence of pectinal fulcra, and later transferred to *Broteochactas* Pocock, 1893d, when Soleglad & Fet (2003) synonymized *Taurepania*

with the latter. Rossi (2018b) subsequently created a monotypic genus to accommodate it. Although the genus was listed by Francke (2019), Prendini *et al.* (2021) doubted its validity and retained the type species in *Broteochactas*. It is apparent from the diagnosis, however, particularly the combination of the trichobothrial pattern of the pedipalp chela, the absence of pectinal fulcra and pedal spurs, as well as the reduced median ocelli and habitus, which is profoundly different from *Taurepania*, that a monotypic genus is merited. Consequently, the validity of *Antridiscalceatus* Rossi, 2018b, is upheld pending further investigation of its phylogenetic position.]

Auyantepuia González-Sponga, 1978 [1 extant species]. Type species: *Broteochactas scorzai* Dagert, 1957 = *Auyantepuia scorzai* (Dagert, 1957), by original designation. [*Auyantepuia* González-Sponga, 1978, was created to accommodate a unique species from the summit of Auyan Tepui, Venezuela. This genus was first synonymized with *Broteochactas* Pocock, 1893d, by Francke & Boos (1986), where it was maintained by Sissom (2000a) and Soleglad & Fet (2003, 2005b). Other authors upheld its validity, however, and more species were added to it, over time (Lourenço & Araujo, 2004; Prendini & Wheeler, 2005; Lourenço & Qi, 2007a; Lourenço & Duhem, 2010; Ythier, 2015, 2018). Based on the arguments of Francke & Boos (1986: 20, 21) and Soleglad & Fet (2003, 2005b), specifically concerning pedipalp chela trichobothrial patterns, confirmed by examination of topotypes of *Auyantepuia scorzai* (Dagert, 1957) (AMNH), and type and non-type material of *Broteochactas nitidus* Pocock, 1893d (AMNH, BMNH 1890.4.29.10-16) and *Broteochactas laui* Kjellesvig-Waering, 1966b (AMNH), it appears that the type species of *Auyantepuia* is neither congeneric with the type species of *Broteochactas*, nor with the other species that have since been assigned to *Auyantepuia*, all of which are instead congeneric with the type species of *Neochactas* Soleglad & Fet, 2003, **stat. rev.** As noted by Francke & Boos (1986: 20) and illustrated by Soleglad & Fet (2003, 2005b), pedipalp chela trichobothrium *eb* is situated on the fixed finger in *A. scorzai* (*i.e.*, the type species of *Auyantepuia*), *B. nitidus* (*i.e.*, the type species of *Broteochactas*) and *Broteochactas gollmeri* (Karsch, 1879b), also retained in *Broteochactas* by Soleglad & Fet (2003, 2005b), whereas trichobothrium *eb* is situated adjacent to the condyle between the fixed and movable fingers in *Neochactas laui* (Kjellesvig-Waering, 1966b) (*i.e.*, the type species of *Neochactas*) and all other species of the latter (including all species assigned to *Auyantepuia* excluding the type species). For these reasons, the validity of this monotypic genus is upheld, and all other species previously assigned to it are transferred to *Neochactas*, resulting in six new combinations (Appendix 1). Six species were previously assigned to *Neochactas* by Soleglad & Fet (2005b): *Neochactas fravalae* (Lourenço, 1983); *Neochactas gaillardi* (Lourenço, 1983); *Neochactas kelleri* (Lourenço, 1997d); *Neochactas mottai* (Lourenço & Araujo, 2004); *Neochactas parvulus* (Pocock, 1897c); *Neochactas sissomi* (Lourenço, 1983).]

Broteochactas Pocock, 1893d [2 extant species]. Type species: *Broteochactas nitidus* Pocock, 1893d, by monotypy. [This genus is hereby restricted to the type species and *Broteochactas gollmeri* (Karsch, 1879b). See comments above under *Auyantepuia* González-Sponga, 1978.]

Brotheas C.L. Koch, 1838 [30 extant species]. Type species: *Broteas granulatus* Simon, 1877 = *Brotheas granulatus* Simon, 1877, by subsequent designation (Lourenço, 1983). [The original spelling is *Brotheas* whereas *Broteas* is an unjustified emendation (Williams, 1971; Francke, 1985; Sissom, 2000a). According to Sissom (2000a), *Brotheas* C.L. Koch, 1838 was based on a type species misidentified as *Scorpio maurus* Linnaeus, 1758 (Scorpionidae Latreille, 1802). The identity of the type specimens, from Cayenne, French Guiana, is unknown but, based on the description and illustration, they probably belong to the chactid genus *Brotheas* (Sissom, 2000a). In treating *S. maurus* as a South American species, C.L. Koch (1838) followed similar misidentifications of DeGeer (1778) and Herbst (1800). Thorell (1876a) proposed a replacement name, *Brotheas herbstii* Thorell, 1876a, for DeGeer's specimens (but not for C.L. Koch's) and this species was long regarded as the type species of *Brotheas*. Lourenço (1983) considered this name a *nomen nudum* and proposed that *Brotheas granulatus* Simon, 1877, be regarded as the type species. *Brotheas herbstii* is not a *nomen nudum* as it refers to the description of DeGeer (1778), but the identity of DeGeer's (1778) specimens remain unknown. Consequently, Sissom (2000a) regarded *B. herbstii* as *incertae sedis*. Article 70(b) of the ICZN (1985, 1999) specifies that proper type species designation in cases of misidentified type species must be referred to the ICZN for ruling.]

Cayooca González-Sponga, 1996b, **stat. rev.** [1 extant species]. Type species: *Cayooca venezuelensis* González-Sponga, 1996b, by original designation. [This monotypic genus, synonymized with *Broteochactas* Pocock, 1893d, without analysis by Soleglad & Fet (2003), was upheld by Prendini & Wheeler (2005). Based on images of the holotype (MAGS 4607) by J.A. Ochoa (in litt.), who examined the specimen at the home of the late M.Á. González-Sponga, this appears to be a valid genus, more closely related to *Brotheas* C.L. Koch, 1838, as suggested in the original description, hence: *Cayooca* González-Sponga, 1996b, **stat. rev.** It may be distinguished from *Brotheas* and the related genus, *Guyanochactas* Lourenço, 1998d, by the following combination of

characters (González-Sponga, 1996b): carapace broad and flattened; pedipalp chela trichobothrium *Dt* situated on dorsodistal margin of manus; external trichobothria of fixed finger forming straight line; chela trichobothrium V_3 situated on prolateral margin of retroventral carina, V_4 situated medially on manus, and V_2–V_4 forming acute angle; pedipalp patella with eight *v* trichobothria; telotarsus with two rows of slender, widely spaced ventrosubmedian macrosetae; respiratory stigmata oval.]

Chactas Gervais, 1844, as *Scorpio* (*Chactas*) Gervais, 1844 [51 extant species, 1 extinct species]. Type species: *Chactas lepturus* Thorell, 1876b, by subsequent designation (Pocock, 1893a). [Pocock (1893b) identified *Chactas lepturus* Thorell, 1876b as the type species of *Chactas* Gervais, 1844. According to Sissom (2000a), this is the earliest reference to discuss the type species of *Chactas* and appears to constitute a valid subsequent designation as defined by the ICZN (1985, 1999). Lourenço (1997c) concluded that the subgenera of *Chactas* described by Mello-Leitão (1945) and González-Sponga (1978) are not valid but provided no formal synonymy. Consequently, the subgenera were upheld by Sissom (2000a). Francke (2019) followed Lourenço (1997c) in listing the subgenera in synonymy. Lourenço's (1997c) decisions are formalized below.]

Chactas (*Brachychactas*) Mello-Leitão, 1945. Type species: *Hormurus brevicaudatus* Karsch, 1879e = *Chactas brevicaudatus* (Karsch, 1879e), by original designation. [Following Lourenço (1997c), *Chactas* (*Brachychactas*) Mello-Leitão, 1945 = *Chactas* Gervais, 1844, **syn. nov.**]

Chactas (*Euchactas*) Mello-Leitão, 1945. Type species: *Broteas aequinoctialis* Karsch, 1879b = *Chactas aequinoctialis* (Karsch, 1879b), by original designation. [Following Lourenço (1997c), *Chactas* (*Euchactas*) Mello-Leitão, 1945 = *Chactas* Gervais, 1844, **syn. nov.**]

Chactas (*Andinochactas*) González-Sponga, 1978. Type species: *Chactas gestroi* Kraepelin, 1912, by original designation. [Following Lourenço (1997c), *Chactas* (*Andinochactas*) González-Sponga, 1978 = *Chactas* Gervais, 1844, **syn. nov.**]

Chactas (*Caribeochactas*) González-Sponga, 1978. Type species: *Chactas gansi* González-Sponga, 1978, by original designation. [Following Lourenço (1997c), *Chactas* (*Caribeochactas*) González-Sponga, 1978 = *Chactas* Gervais, 1844, **syn. nov.**]

Guyanochactas Lourenço, 1998d [6 extant species]. Type species: *Brotheas gonzalezspongai* Lourenço, 1983 = *Guyanochactas gonzalezspongai* (Lourenço, 1983), by original designation. [This genus, synonymized with *Broteochactas* Pocock, 1893d, without analysis by Soleglad & Fet (2003), was upheld by Prendini & Wheeler (2005) and subsequent authors (*e.g.*, Ythier, 2018). It is most closely related to *Brotheas* C.L. Koch, 1838, from which it appears to differ, among other characters, by carapace flat, surfaces smooth to sparsely granular, respiratory stigmata oval, and telotarsi with two ventrosubmedian rows of spiniform macrosetae (Lourenço, 1998d; Ythier *et al.*, 2025a). Its validity, as distinct from *Brotheas*, remains to be tested.]

Hadrurochactas Pocock, 1893a [9 extant species]. Type species: *Hadrurochactas sclateri* Pocock, 1893a = *Hadrurochactas schaumii* (Karsch, 1880a), by monotypy.

Neochactas Soleglad & Fet, 2003, **stat. rev.** [51 extant species]. Type species: *Broteochactas laui* Kjellesvig-Waering, 1966b = *Neochactas laui* (Kjellesvig-Waering, 1966b), by original designation. [*Neochactas* Soleglad & Fet, 2003, was synonymized with *Broteochactas* Pocock, 1893d, by Prendini & Wheeler (2005), a decision upheld by subsequent authors (*e.g.*, Lourenço *et al*., 2010b, 2011; Lourenço, 2014b, 2017a). Based on the arguments of Francke & Boos (1986: 20, 21) and Soleglad & Fet (2003, 2005b), specifically concerning trichobothrial patterns of the pedipalp chela, confirmed by comparison of type and non-type material of *Broteochactas laui* Kjellesvig-Waering, 1966b (AMNH), and *Broteochactas nitidus* Pocock, 1893d (AMNH, BMNH 1890.4.29.10-16), it is evident that the type species of these genera are not congeneric, however. Specifically, as noted by Francke & Boos (1986: 20) and illustrated by Soleglad & Fet (2003, 2005b), pedipalp chela trichobothrium *eb* is situated adjacent to the condyle between the fixed and movable fingers in *Neochactas laui* (Kjellesvig-Waering, 1966b) (*i.e.*, the type species of *Neochactas*) and all other species of the latter, whereas trichobothrium *eb* is situated on the fixed finger in *B. nitidus* (*i.e.*, the type species of *Broteochactas*) and *Broteochactas gollmeri* (Karsch, 1879b), also retained in *Broteochactas* by Soleglad & Fet (2003, 2005b). Consequently, *Neochactas* Soleglad & Fet, 2003, **stat. rev.**, is revalidated, resulting in seven new combinations (Appendix 1).]

Spinochactas Lourenço, 2016b [2 extant species]. Type species: *Spinochactas mitaraka* Lourenço, 2016b, by original designation.

Taurepania González-Sponga, 1978, **stat. rev.** [5 extant species]. Type species: *Broteochactas porosus* Pocock, 1900b = *Taurepania porosus* (Pocock, 1900b). [This genus was created to accommodate several species endemic to the summits of tepuis in Brazil and Venezuela, which share a distinct morphology, including small size (usually less than 35 mm in total length) and a rather narrow pedipalp chela manus (width ca. 30% of chela length) with

proportionally long fingers (ca. 60% chela length). It was synonymized with *Broteochactas* Pocock, 1893d, without analysis by Soleglad & Fet (2003), upheld by Prendini & Wheeler (2005), and later relegated to a subgenus of *Broteochactas* by Lourenço (2017b), again without analysis or justification. In the interests of consistency with related genera such as *Auyantepuia* González-Sponga, 1978, *Hadrurochactas* Pocock, 1893a, and *Vachoniochactas* González-Sponga, 1978, and pending a rigorous analysis of chactid phylogeny, its generic status is hereby reinstated, hence *Taurepania* González-Sponga, 1978, **stat. rev.** *Taurepania mauriciodiasi* Lourenço, 2017b, **comb. nov.**, is added to the list of species previously assigned to this genus (Sissom, 2000a).]

Teuthraustes Simon, 1878 [28 extant species]. Type species: *Teuthraustes atramentarius* Simon, 1878, by monotypy.

Heterochactas Pocock, 1893a. Type species: *Heterochactas gervaisii* Pocock, 1893a = *Teuthraustes gervaisii* (Pocock, 1893a), by original designation. Synonymized by Kraepelin (1899).

Uroctonoides Chamberlin, 1920. Type species: *Uroctonoides fractus* Chamberlin, 1920 = ?*Teuthraustes lojanus* (Pocock, 1900c), by monotypy. Synonymized by Soleglad (1973).

Vachoniochactas González-Sponga, 1978 [5 extant species]. Type species: *Vachoniochactas lasallei* González-Sponga, 1978, by original designation.

Subfamily **Chactopsinae**
Soleglad & Sissom, 2001, **stat. nov.**[25]
(3 extant genera)

Chactopsis Kraepelin, 1912 [8 extant species]. Type species: *Chactopsis insignis* Kraepelin, 1912, by monotypy.

Chactopsoides Ochoa, Rojas-Runjac, Pinto-da-Rocha & Prendini, 2013 [4 extant species]. Type species: *Chactopsis anduzei* González-Sponga, 1982 = *Chactopsoides anduzei* (González-Sponga, 1982), by original designation.

Megachactops Ochoa, Rojas-Runjac, Pinto-da-Rocha & Prendini, 2013 [3 extant species]. Type species: *Megachactops kuemoi* Ochoa, Rojas-Runjac, Pinto-da-Rocha & Prendini, 2013, by original designation.

Family **Euscorpiidae** Laurie, 1896
(2 extant subfamilies, 1 extinct genus *incertae sedis*)

Incertae sedis

†***Eoeuscorpius*** Kühl & Lourenço, 2017 [1 extinct species]. Type species: †*Eoeuscorpius ceratoi* Kühl & Lourenço, 2017, by original designation.

Subfamily **Euscorpiinae** Laurie, 1896
(3 extant genera)

Alpiscorpius Gantenbein, Fet, Largiadèr & Scholl, 1999, as *Euscorpius* (*Alpiscorpius*) Gantenbein, Fet, Largiadèr & Scholl, 1999 [28 extant species]. Type species: *Scorpius germanus* C.L. Koch, 1837b = *Euscorpius* (*Alpiscorpius*) *germanus* (C.L. Koch, 1837b) = *Alpiscorpius*) *germanus* (C.L. Koch, 1837b), by original designation.

Alpiscorpius (*Balkanscorpius*) Tropea, 2021. Type species: *Alpiscorpius* (*Balkanscorpius*) *zloporubovici* Tropea, 2021 = *Alpiscorpius zloporubovici* Tropea, 2021, **comb. nov.**, by original designation. [Tropea (2021: 29) created this subgenus to accommodate nine species of *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999, from the Balkans, based on differences in the relative distances of trichobothria *et*, *est* and *dsb* on the fixed finger of the pedipalp chela and "traces of carinae" on metasomal segment V. Specifically, *est* is aligned with or proximal to the centre of the notch in the fixed finger, such that the ratio of distance *et-est*/*est-dsb* is > 1.9 in *Alpiscorpius* (*Balkanscorpius*) Tropea, 2021, but distal to the notch, such that the ratio is < 1.4, in the nominotypical subgenus; and metasomal segment V "may have traces of carinae and range from slightly granulated, almost smooth, to granulated with no trace of carinae", in *Alpiscorpius* (*Balkanscorpius*), but is "mostly smooth and rounded" in the nominotypical subgenus. Such minor differences do not merit recognition at a rank above the level of species (*e.g.*, Soleglad & Sissom, 2001). Tropea (2021) cited similar levels of genetic divergence in mitochondrial gene loci between *Euscorpius* (*Polytrichobothrius*) Birula, 1917, and *Euscorpius* Thorell, 1876a, and between *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012, and *Iurus* Thorell, 1876a, as additional justification for the subgenus. Aside from the fact that *Euscorpius* (*Polytrichobothrius*) and *Protoiurus* respectively render *Euscorpius* and *Iurus* paraphyletic (and are synonymized accordingly, below), the use of genetic divergence thresholds for arbitrarily delimiting genera and other taxonomic ranks has been widely criticized (*e.g.*, DeSalle *et al.*, 2005; Zou *et al.*, 2011; Mahoney *et al.*, 2024; Hart *et al.*, 2025). Further justification was based on two published molecular phylogenies (Scherabon *et al*., 2000; Graham *et al.*, 2012), neither of which convincingly demonstrated

reciprocal monophyly between putative species of *Alpiscorpius* (*Balkanscorpius*), *e.g.*, *Alpiscorpius ypsilon* Kovařík, Štundlová, Fet & Šťáhlavský, 2019, on account of limited taxonomic sampling. Apparently unaware or unconcerned that *Alpiscorpius* would become paraphyletic upon recognition of the new subgenus (*e.g.*, Fet *et al.*, 2016: 3, Fig. 2; Kovařík *et al.*, 2019: 4), Tropea (2021: 29) remarked: "although it seems clear that *Balkanscorpius* is a valid genus, in the present work it will be considered to be a subgenus, to avoid creating paraphilia [sic] in the genus *Alpiscorpius*, with consequent taxonomic confusion." The notion that "excluding" all eastern *Alpiscorpius* species (*i.e.*, from Turkey, Georgia and Russia) from the nominotypical subgenus would prevent paraphyly suggests a misunderstanding of the concept. To restore the monophyly of *Alpiscorpius*, the following synonym is presented, resulting in three new combinations (Appendix 1): *Alpiscorpius* (*Balkanscorpius*) Tropea, 2021 = *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999, **syn. nov.**.]

Alpiscorpius (*Hadzius*) Tropea, 2021. Type species: *Alpiscorpius* (*Hadzius*) *karamani* Tropea, 2021 = *Alpiscorpius karamani* Tropea, 2021, **comb. nov.**, by original designation. [Tropea (2021: 25) created this putative subgenus to accommodate a single species differing solely from *Alpiscorpius* (*Balkanscorpius*) Tropea, 2021, and the nominotypical subgenus by its slightly larger size ("31–36.5 mm vs usually a size < 30 [mm]" in total length) and higher trichobothrial counts on the pedipalp patella, *i.e.*, one or two more *et* trichobothria and one to three more *v* trichobothria. Counts of trichobothria in the *et* and *v* series of the patella are known to be highly variable, even within the same species of *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999 (*e.g.*, Tropea *et al.*, 2015a; Kovařík *et al.*, 2019) and, in at least three species of *Alpiscorpius* (*Balkanscorpius*), *i.e.*, *Alpiscorpius caporiaccoi* (Bonacina, 1980), *Alpiscorpius pavicevici* Tropea, 2021, **comb. nov.**, and *Alpiscorpius zloporubovici* Tropea, 2021, **comb. nov.**, some specimens possess five *et* trichobothria and six or seven *v* trichobothria, overlapping with the counts proposed as diagnostic for *Alpiscorpius* (*Hadzius*) Tropea, 2021. No other justification was provided besides the following "the generic position of this taxon is somewhat doubtful, so, for the moment, we place it in the genus *Alpiscorpius*, but in a new subgenus, *Hadzius* subg. n. which likely will be raised to the genus level in the near future." In the absence of compelling evidence to the contrary, the very minor, species-level characters provided to support this subgenus do not warrant its continued recognition. Therefore, *Alpiscorpius* (*Hadzius*) Tropea, 2021 = *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999, **syn. nov.**, resulting in a new combination (Appendix 1).]

Euscorpius Thorell, 1876a [76 extant species]. Type species: *Scorpio carpathicus* Linnaeus, 1767 = *Euscorpius carpathicus* (Linnaeus, 1767), by original designation. [*Euscorpius* Thorell, 1876a, was introduced as a replacement name for *Scorpius* (referring to Ehrenberg, in Hemprich & Ehrenberg, 1829, as author) not on the basis of homonymy, but based on an (invalid) argument by Thorell (1876a) that names such as *Scorpio* or *Scorpius* cannot designate a genus due to their "generic" form (Fet & Sissom, 2000). Later, Francke (1985) listed "*Scorpius* Lacépède, 1802" (Pisces) as a senior homonym of "*Scorpius* Ehrenberg". However, Lacépède (1802) used this name only in a list of pre-Linnean synonyms ("*Scorpius* Aldrovandi"), therefore this name is not available under Lacépède's (1802) authorship (Fet & Sissom, 2000). Simon (1879) was the first to discover that Poda (1761), not Ehrenberg, in Hemprich & Ehrenberg (1829), first used the generic name *Scorpius* for a European scorpion. The names *Mesotrichus*, *Oligotrichus*, and *Polytrichus*, created by Michalis & Kattoulas (1981), were not introduced to denote genus-group names as they explicitly referred to subspecies of *Euscorpius italicus* (Herbst, 1800). Fet & Sissom (2000) treated these names as incorrect subsequent spellings of species-group names *mesotrichus*, *oligotrichus*, and *polytrichus*. Two subspecies of *Euscorpius* are elevated to the rank of species (Appendix 1), based on examination of topotypes and evidence that they are diagnosable from the nominotypical forms.]

Scorpius Poda, 1761. Type species: *Scorpio europaeus* (Linnaeus, 1758) [name suppressed], originally by monotypy, subsequently designated as *Euscorpius carpathicus* (Linnaeus, 1767) by Fet & Sissom (2000). Synonymized by Thorell (1876a). [The type species of Poda's (1761) genus *Scorpius* is originally by monotypy "*Scorpius europaeus*" referable to Linnaeus (1758). However, *Scorpio europaeus* Linnaeus, 1758, is a suppressed name (ICZN, 1957a) and is not available (Fet & Sissom, 2000). The same name was used in combination with *Scorpius* by Ehrenberg, in Hemprich & Ehrenberg (1829). C.L. Koch (1837a) was the first author to use an available species name in a combination with this generic name for *Scorpius aquilejensis* C.L. Koch, 1837a. Thus, unlike *Euscorpius* Thorell, 1876a, the generic name *Scorpius* has not been used since the 1870s. The currently suppressed name *Scorpio europaeus* Linnaeus, 1758, was used to denote various species of *Euscorpius* by several early authors, *e.g.*, Sulzer (1761), Scopoli (1763), Paula Schrank (1781), DeGeer (1778), Latreille (1804). The species in question are in most cases unidentifiable (Fet & Sissom, 2000).]

Euscorpius (*Polytrichobothrius*) Birula, 1917. Type species: *Scorpio italicus* Herbst, 1800 = *Euscorpius* (*Polytrichobothrius*) *italicus* (Herbst, 1800) = *Euscorpius italicus* (Herbst, 1800), by

original designation. [The two species assigned to this subgenus consistently form a monophyletic group in phylogenetic analyses (*e.g.*, Parmakelis *et al.*, 2013; Tropea, 2013; Tropea *et al.*, 2015, 2016), united by several possible synapomorphies, including large size, with adults often reaching 50 mm or more in total length, and high counts of pedipalp trichobothria, typically 8–11 trichobothria in the *V* series of the chela, 11–13 trichobothria in the *v* series of the patella, and 26–45 trichobothria in the *e* series of the patella. However, the group is consistently placed within the nominotypical subgenus, *Euscorpius* Thorell, 1876a, which is rendered paraphyletic as a result. Additionally, the putatively diagnostic counts of pedipalp trichobothria break down as more species with high counts, but which are not closely related to the two species of the subgenus, continue to be discovered (Tropea *et al.*, 2015b, 2016), suggesting that, as in other scorpion taxa, counts of accessory trichobothria are unreliable characters at the generic level (*e.g.*, Lamoral, 1979; Prendini, 2001b, 2003; Prendini & Wheeler, 2005; Amiri Ghanat Saman *et al.*, 2025). For these reasons, the following new synonym is proposed: *Euscorpius* (*Polytrichobothrius*) Birula, 1917 = *Euscorpius* Thorell, 1876a, **syn. nov.** (Appendix 1).]

Tetratrichobothrius Birula, 1917, as *Euscorpius* (*Tetratrichobothrius*) Birula, 1917 [2 extant species]. Type species: *Scorpio flavicaudis* DeGeer, 1778 = *Euscorpius* (*Tetratrichobothrius*) *flavicaudis* (DeGeer, 1778) = *Tetratrichobothrius flavicaudis* (DeGeer, 1778), by original designation. [One subspecies, which appears to be diagnosable from the nominotypical form, is elevated to the rank of species and another, which does not, is synonymized (Appendix 1).]

Acanthothraustes Mello-Leitão, 1945. Type species: *Teuthraustes brasilianus* Mello-Leitão, 1931b = *Acanthothraustes brasilianus* (Mello-Leitão, 1931b) = *Euscorpius* (*Tetratrichobothrius*) *flavicaudis* (DeGeer, 1778) = *Tetratrichobothrius flavicaudis* (DeGeer, 1778). Synonymized by Lourenço & Vachon (1981).

Subfamily **Megacorminae** Kraepelin, 1899
(1 extant genus)

Megacormus Karsch, 1881b [11 extant species]. Type species: *Scorpio granosus* Gervais, 1843 = *Megacormus granosus* (Gervais, 1843), by monotypy.

Plesiochactas Pocock, 1900c. Type species: *Plesiochactas dugesi* Pocock, 1900c = *Megacormus dilutus* Karsch, 1881b, **comb. nov.**, by monotypy. [Zárate-Gálvez & Francke (2009) doubted the validity of *Plesiochactas* Pocock, 1900c. The senior synonym of its type species was originally assigned to *Megacormus* Karsch, 1881b, and, although separated from *Megacormus* by the presence of pectinal fulcra, *Plesiochactas mitchelli* Soleglad, 1976, lacks fulcra. *Plesiochactas dilutus* (Karsch, 1881b) and *P. mitchelli* share five trichobothria in the *et* series of the pedipalp patella, compared with four or five in *Plesiochactas vasquezi* Trujillo & Armas, 2012, and three or four trichobothria in *Megacormus* (Soleglad, 1976; Trujillo & Armas, 2012). However, the number of *et* trichobothria is variable in Euscorpiidae Laurie 1896 (Soleglad & Sissom 2001), hence this character could be symplesiomorphic in the species assigned to *Plesiochactas* (Zárate-Gálvez & Francke, 2009). Soleglad (1976) and Soleglad & Sissom (2001) suggested that *Plesiochactas* and *Megacormus* may also be separated by pedipalp chela finger dentition: the former with more than 45 small, prolateral accessory denticles, arranged into rows; the latter with more than 35 small, irregularly scattered retrolateral accessory denticles. Comparison of the denticle pattern of *P. mitchelli* with *Megacormus gerstchi* Díaz Nájera, 1966, and *P. dilutus*, by Zárate-Gálvez & Francke (2009) indicated greater similarity between the first two taxa, which shared transverse "tetrads" along the movable finger length whereas, in *P. dilutus*, the tetrads disappeared after distal group 3 and only enlarged pro- and retrolateral denticles were present, and a distinct "double row" of median and prolateral accessory denticles was present along the basal two-thirds of the movable finger. The lack of convincing diagnostic characters for separating these genera was confirmed by comparison of the holotypes of *Plesiochactas dugesi* Pocock, 1900c (BMNH 1900.2.28.1), *Megacormus granosus dilutus* Karsch, 1881b (ZMB 3251), and *Plesiochactas mitchelli* Soleglad, 1976 (BMNH), for the present study. Consequently, *Plesiochactas* Pocock, 1900c = *Megacormus* Karsch, 1881b, **syn. nov.**, resulting in three new combinations (Appendix 1).]

Family **Nullibrotheidae**
Soleglad & Fet, 2003, **stat. nov.**[26]
(1 extant genus)

Nullibrotheas Williams, 1974 [1 extant species]. Type species: *Scorpius allenii* Wood, 1863 = *Nullibrotheas allenii* (Wood, 1863), by original designation.

Family †**Palaeoeuscorpiidae** Lourenço, 2003a
(2 extinct subfamilies)

Subfamily †**Archaeoscorpiopinae** Lourenço, 2015a
(2 extinct genera)

†***Archaeoscorpiops*** Lourenço, 2015a [2 extinct species]. Type species: †*Archaeoscorpiops cretacicus* Lourenço, 2015a, by original designation.

†***Burmesescorpiops*** Lourenço, 2016c [2 extinct species]. Type species: †*Burmesescorpiops groehni* Lourenço, 2016c, by original designation.

Subfamily †**Palaeoeuscorpiinae** Lourenço, 2003a
(1 extinct genus)

†***Palaeoeuscorpius*** Lourenço, 2003a [1 extinct species]. Type species: †*Palaeoeuscorpius gallicus* Lourenço, 2003a, by original designation.

Family †**Protochactidae** Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022
(1 extinct genus)

†***Protochactas*** Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022 [1 extinct species]. Type species: †*Protochactas furreri* Lourenço, Magnani & Stockar, in Magnani, Stockar & Lourenço, 2022, by original designation.

Family **Scorpiopidae** Kraepelin, 1905
(2 extant subfamilies)

Subfamily **Scorpiopinae** Kraepelin, 1905[27]
(6 extant genera)

Alloscorpiops Vachon, 1980b, **stat. rev.**, as *Scorpiops* (*Alloscorpiops*) Vachon, 1980b [13 extant species]. Type species: *Scorpiops anthracinus* Simon, 1887 = *Alloscorpiops anthracinus* (Simon, 1887), by original designation. [Kovařík *et al.* (2020) synonymized *Scorpiops* (*Alloscorpiops*) Vachon, 1980b, with *Scorpiops* Peters, 1861b. *Alloscorpiops* Vachon, 1980b, **stat. rev.**, is hereby returned to the rank of genus, consistent with prior studies by Stockwell (1989) and Soleglad & Sissom (2001) and pending a more rigorous and comprehensive analysis of scorpiopid phylogeny, resulting in seven new combinations (Appendix 1). The following diagnostic character combination, which has limitations (Kovařík *et al.*, 2020), was provided for *Alloscorpiops* by Soleglad & Sissom (2001): telson vesicle with annular ring at base of aculeus (at least in male); pedipalp chela trichobothrium *Db* situated proximal to trichobothrium *Dt*, which is, in turn, situated proximal to trichobothrium Eb_3, and trichobothrium *eb* situated markedly proximal to trichobothrium *db*; chela with four *V* trichobothria, patella with 8–10 *est* trichobothria and 15–19 *v* trichobothria. Unlike Pocock (1900a), Kraepelin (1913) suggested that *Alloscorpiops lindstroemi* (Thorell, 1889), **stat. rev.**, is a junior synonym of *Alloscorpiops anthracinus* (Simon, 1887), an opinion disregarded by Vachon (1980b) and Fet (2000c), but upheld by Kovařík (2013), who synonymized the species, and Kovařík *et al.* (2013a). The validity of this species is recognized herein, following Lourenço & Pham (2015b) and Lourenço & Košulič (2018).]

Alloscorpiops (*Laoscorpiops*) Lourenço, 2013. Type species: *Alloscorpiops* (*Laoscorpiops*) *calmonti* Lourenço, 2013 = *Alloscorpiops calmonti* (Lourenço, 2013), **comb. nov.**, by original designation. [Kovařík *et al.* (2013a) synonymized *Alloscorpiops* (*Laoscorpiops*) Lourenço, 2013, with *Alloscorpiops* Vachon, 1980b, **stat. rev.**, and later (Kovařík *et al.*, 2020) with *Scorpiops* Peters, 1861b. However, following revalidation of the former, the earlier synonym of Kovařík *et al.* (2013a) is upheld, hence *Alloscorpiops* (*Laoscorpiops*) Lourenço, 2013 = *Alloscorpiops* Vachon, 1980b, **syn. nov.**, resulting in a new combination (Appendix 1). Examination of topotypes (AMNH) confirmed the opinion of Kovařík *et al.* (2013a) that the subgenus was based on a misinterpretation of the trichobothrial pattern on the pedipalp chela, *i.e.*, two accessory trichobothria in the *V* series were misinterpreted as part of the *Eb* series.]

Plethoscorpiops Lourenço, 2017c. Type species: *Plethoscorpiops profusus* Lourenço, 2017c = *Alloscorpiops profusus* (Lourenço, 2017c), **comb. nov.**, by original designation. [Kovařík *et al.* (2020) synonymized *Plethoscorpiops* Lourenço, 2017c, with *Scorpiops* Peters, 1861b, but it was revalidated (at the rank of subgenus) by Lourenço & Ythier (2022). According to the original description, *Plethoscorpiops* differs primarily from *Alloscorpiops* Vachon, 1980b, **stat. rev.**, and *Dasyscorpiops* Vachon, 1974, **stat. rev.**, in the presence of accessory trichobothria in the *Eb* series of the pedipalp chela, absent in the other genera, and higher counts of accessory trichobothria in the *V* series of the chela and the *e* and *v* series of the patella (Lourenço, 2017c), which were confirmed by examination of topotypes (AMNH). Accessory trichobothria are widely considered unreliable characters for species and, especially, generic diagnosis, however (*e.g.*, Lamoral, 1979; Prendini, 2001b, 2003; Prendini & Wheeler, 2005; Amiri Ghanat Saman *et al.*, 2025). Therefore, based on the high counts of accessory trichobothria on both the pedipalp chela and patella, and in the absence of other diagnostic characters or evidence, *Plethoscorpiops* Lourenço, 2017c = *Alloscorpiops* Vachon, 1980b, **syn. nov.**, resulting in a new combination (Appendix 1).]

Dasyscorpiops Vachon, 1974, **stat. rev.** [1 extant species]. Type species: *Dasyscorpiops grandjeani* Vachon, 1974, by monotypy. [Kovařík *et al.* (2020) synonymized *Dasyscorpiops* Vachon, 1974, **stat. rev.**, with *Scorpiops* Peters, 1861b, but it was revalidated (at the rank of subgenus) by Lourenço & Ythier (2022). This monotypic genus is hereby returned to the rank of genus, consistent with prior studies by Stockwell (1989) and Soleglad &

Sissom (2001) and pending a more rigorous and comprehensive analysis of scorpiopid phylogeny. The following diagnostic character combination, which has limitations (Kovařík *et al.*, 2020), was provided for *Dasyscorpiops* by Soleglad & Sissom (2001): telson vesicle without annular ring at base of aculeus; pedipalp chela fingers median denticle subrows and prolateral accessory denticle subrows straight distally; pedipalp chela trichobothrium *Db* situated proximal to trichobothrium *Dt*, which is, in turn, situated proximal to trichobothrium Eb_3; pedipalp patella with high counts of trichobothria on retrolateral (> 55) and ventral (23) surfaces.]

Euscorpiops Vachon, 1980b, **stat. rev.**, as *Scorpiops* (*Euscorpiops*) Vachon, 1980b [43 extant species]. Type species: *Scorpiops asthenurus* Pocock, 1900a = *Euscorpiops asthenurus* (Pocock, 1900a), by original designation. [Kovařík *et al.* (2020) synonymized *Scorpiops* (*Euscorpiops*) Vachon, 1980b, with *Scorpiops* Peters, 1861b, but it was revalidated (at the rank of subgenus) by Lourenço & Ythier (2022). *Euscorpiops* Vachon, 1980b, **stat. rev.**, is hereby returned to the rank of genus, consistent with prior studies by Stockwell (1989) and Soleglad & Sissom (2001) and pending a more rigorous and comprehensive analysis of scorpiopid phylogeny, resulting in 16 new combinations (Appendix 1). The following diagnostic character combination, which has limitations (Kovařík *et al.*, 2020), was provided for *Euscorpiops* by Soleglad & Sissom (2001): telson vesicle with annular ring at base of aculeus (at least in male); pedipalp chela trichobothrium *Db* situated proximal to trichobothrium *Dt*, which is, in turn, situated proximal to trichobothrium Eb_3, and trichobothrium *eb* situated moderately proximal to trichobothrium *db*; chela with four *V* trichobothria, patella with 4–6 *est* trichobothria and 7–13 *v* trichobothria.]

Neoscorpiops Vachon, 1980b, **stat. rev.**, as *Scorpiops* (*Neoscorpiops*) Vachon, 1980b [11 extant species]. Type species: *Scorpiops montanus satarensis* Pocock, 1900a = *Neoscorpiops satarensis* (Pocock, 1900a), by original designation. [Kovařík *et al.* (2020) synonymized *Scorpiops* (*Neoscorpiops*) Vachon, 1980b, with *Scorpiops* Peters, 1861b, but it was revalidated (at the rank of subgenus) by Lourenço & Ythier (2022). *Neoscorpiops* Vachon, 1980b, **stat. rev.**, is hereby returned to the rank of genus, consistent with prior studies by Stockwell (1989) and Soleglad & Sissom (2001) and pending a more rigorous and comprehensive analysis of scorpiopid phylogeny, resulting in six new combinations (Appendix 1). The following diagnostic character combination, which has limitations (Kovařík *et al.*, 2020), was provided for *Neoscorpiops* by Soleglad & Sissom (2001): telson vesicle without annular ring at base of aculeus; pedipalp chela fingers with > 45 prolateral accessory denticles; pedipalp chela trichobothrium *Db* aligned with or slightly proximal to trichobothrium Eb_3, which is, in turn, aligned with or slightly proximal to trichobothrium *Dt*, and trichobothrium *eb* situated proximal to trichobothrium *db*; pedipalp patella with 7–10 *est* trichobothria and 5–7 *et* trichobothria.]

Parascorpiops Banks, 1928 [1 extant species]. Type species: *Parascorpiops montana* Banks, 1928 = *Parascorpiops montanus* Banks, 1928, by original designation. [As noted by Fet (2000c), the correct spelling of the species epithet is *montanus* as all names ending with "-ops" are considered masculine according to Article 30(a)(ii) of the ICZN (1985, 1999).]

Scorpiops Peters, 1861b [48 extant species]. Type species: *Scorpio* (*Scorpius*) *hardwickii* Gervais, 1843 = *Scorpiops hardwickii* (Gervais, 1843), by monotypy. [The following diagnostic character combination, which has limitations (Kovařík *et al.*, 2020), was provided for *Scorpiops* by Soleglad & Sissom (2001): telson vesicle without annular ring at base of aculeus; pedipalp chela fingers with < 30 prolateral accessory denticles; chela trichobothrium *Db* aligned with or slightly proximal to trichobothrium Eb_3, which is, in turn, aligned with or slightly proximal to trichobothrium *Dt*, and trichobothrium *eb* aligned with trichobothrium *db*; pedipalp patella with 4–5 *est* trichobothria and 4–5 *et* trichobothria.]

Pareuscorpius Vachon, in Lindberg, 1961 [*nomen nudum*].

Scorpiops (*Vietscorpiops*) Lourenço & Pham, 2015a. Type species: *Scorpiops* (*Vietscorpiops*) *dentidactylus* Lourenço & Pham, 2015a = *Scorpiops farkaci* Kovařík, 1993, by original designation. Synonymized by Kovařík *et al.* (2020). [The conclusion that this monotypic subgenus is conspecific with *Scorpiops farkaci* Kovařík, 1993, or something close, was reached independently by the author, based on the diagnosis, description, illustrations (Lourenço & Pham, 2015a) and images of the holotype (MNHN RS 8981) posted on the MNHN website, which match material of the latter (AMNH) in size and other characters such as the enlarged proximal denticle of the pedipalp chela movable finger. The subgenus is retained as a junior synonym of *Scorpiops* Peters, 1861b, pending a more rigorous and comprehensive analysis of scorpiopid phylogeny.]

Subfamily **Troglocorminae** Soleglad & Sissom, 2001[28]
(1 extant genus)

Troglocormus Francke, 1981a [2 extant species]. Type species: *Troglocormus willis* Francke, 1981a, by original designation.

Family **Troglotayosicidae** Lourenço, 1998a, **stat. rev.**[29]
(1 extant genus)

Troglotayosicus Lourenço, 1981a [7 extant species]. Type species: *Troglotayosicus vachoni* Lourenço, 1981a, by original designation.

Family **Typhlochactidae** Mitchell, 1971
(2 extant subfamilies)

Subfamily **Alacraninae** Vignoli & Prendini, 2009
(1 extant genus)

Alacran Francke, 1982b [3 extant species]. Type species: *Alacran tartarus* Francke, 1982b, by original designation.

Subfamily **Typhlochactinae** Mitchell, 1971
(3 extant genera)

Sotanochactas Francke, 1986 [1 extant species]. Type species: *Typhlochactas elliotti* Mitchell, 1971 = *Sotanochactas elliotti* (Mitchell, 1971), by original designation.

Stygochactas Vignoli & Prendini, 2009 [1 extant species]. Type species: *Typhlochactas granulosus* Sissom & Cokendolpher, 1998 = *Stygochactas granulosus* (Sissom & Cokendolpher, 1998), by original designation.

Typhlochactas Mitchell, 1971 [6 extant species]. Type species: *Typhlochactas rhodesi* Mitchell, 1968, by subsequent designation (Mitchell, 1971).

Family **Uroctonidae** Mello-Leitão, 1934a, **stat. nov.**[30]
(1 extant genus)

Uroctonus Thorell, 1876a [3 extant species]. Type species: *Uroctonus mordax* Thorell, 1876a, by monotypy. [Based on the phylogenetic analyses of Bryson *et al.* (2016) and examination of types and topotypes (AMNH, CAS), one subspecies is synonymized (Appendix 1).]

Superfamily **Hadruroidea** Stahnke, 1974
(1 extant family)

Family **Hadruridae** Stahnke, 1974
(2 extant genera)

Hadrurus Thorell, 1876a [7 extant species]. Type species: *Buthus hirsutus* Wood, 1863 = *Hadrurus hirsutus* (Wood, 1863), by original designation. [One subspecies is synonymized (Appendix 1), based on examination of types (CAS) and topotypes (AMNH).]

Hoffmannihadrurus Fet & Soleglad, in Fet, Soleglad, Neff & Stathi, 2004 [2 extant species]. Type species: *Hadrurus aztecus* Pocock, 1902a = *Hoffmannihadrurus aztecus* (Pocock, 1902a), by original designation.

Superfamily **Iuroidea** Thorell, 1876a
(1 extant family)

Family **Iuridae** Thorell, 1876a
(2 extant subfamilies)

Subfamily **Calchinae** Birula, 1917
(2 extant genera)

Calchas Birula, 1899 [4 extant species]. Type species: *Calchas nordmanni* Birula, 1899, by original designation.

Paraiurus Francke, 1985. Type species: *Calchas nordmanni* Birula, 1899, by original designation. Synonymized by Fet & Madge (1988). [*Paraiurus* Francke, 1985, was introduced as a replacement name for *Calchas* Birula, 1899. However, as noted by Fet & Madge (1988), the generic name *Calchas* Birula, 1899, is valid as its alleged senior homonym *Calchas* Klug, 1850, is an incorrect subsequent spelling of *Chalcas* Fairmaire, 1847 (Insecta: Coleoptera).]

Neocalchas Yağmur, Soleglad, Fet & Kovařík, 2013 [1 extant species]. Type species: *Calchas gruberi* Fet, Soleglad & Kovařík, 2009 = *Neocalchas gruberi* (Fet, Soleglad & Kovařík, 2009), by original designation.

Subfamily **Iurinae** Thorell, 1876a
(1 extant genus)

Iurus Thorell, 1876a [9 extant species].[31] Type species: *Buthus granulatus* C.L. Koch, 1837c = *Iurus granulatus* (C.L. Koch, 1837c) = *Iurus dufoureius* (Brullé, 1832), by original designation.

Chaerilomma Roewer, 1943. Type species: *Chaerilomma dekanum* Roewer, 1943 = *Iurus dekanum* (Roewer, 1943), by monotypy. Synonymized by Vachon (1966).

Protoiurus Soleglad, Fet, Kovařík & Yağmur, 2012. Type species: *Iurus dufoureius asiaticus* Birula, 1903d = *Iurus asiaticus* Birula, 1903d, by original designation. [The type species of this monotypic genus, originally described as a subspecies of the type species of *Iurus* Thorell, 1876a, is evidently congeneric with the latter based on examination of nontype material (AMNH) from the vicinity of the type locality. The characters presented to separate this genus from *Iurus*, primarily concerning minor differences in the shape of the male hemispermatophore,

particularly the angle of the hook (referred to as the "acuminate process"), the position of the lobe on the pedipalp chela movable finger of the adult male, and overlapping counts of pectinal teeth and prolateral denticles on the pedipalp chela movable finger, are more appropriate for species-level than generic-level diagnosis (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b, 2001c; Jacob *et al.*, 2004; Monod & Volschenk, 2004; González-Santillán & Prendini, 2013; Blasco-Aróstegui *et al.*, 2025b). This genus, as defined by Soleglad *et al.* (2012), was recovered paraphyletic with respect to *Iurus* in the analyses of Parmakelis *et al.* (2022). To restore its monophyly, *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012, was divided into four genera, the estimated genetic divergence among which is comparable to the genetic divergence among the species of *Calchas* Birula, 1899, which were not assigned to different genera (Parmakelis *et al.*, 2022: 9, Figure 4). Rather than creating three monotypic genera and one genus of two species—for critiques of such practices, see *e.g.*, Platnick (1974) and Muñoz-Rodríguez *et al.* (2023)—the logical remedy to resolve the paraphyly of *Protoiurus* would have been to synonymize *Protoiurus* with *Iurus*. That decision is implemented here: *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012 = *Iurus* Thorell, 1876a, **syn. nov.**]

Anatoliurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022. Type species: *Iurus kraepelini* Von Ubisch, 1922, by original designation. [The type species of this genus, originally described as a species of *Iurus* Thorell, 1876a, is evidently congeneric with the latter based on the diagnosis and examination of topotypes (NHMW). The putative diagnostic characters separating this genus from *Iurus*, concerning minor, overlapping differences in total length, overlapping counts of pectinal teeth and prolateral denticles on the pedipalp chela movable finger, subtle differences in hemispermatophore shape, and the curvature and extent of the proximal gap between the fixed and movable fingers of the pedipalp chela of the adult male, while valid for species-level recognition, are inappropriate as generic-level characters (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b, 2001c; Monod & Volschenk, 2004; González-Santillán & Prendini, 2013; Blasco-Aróstegui & Prendini, 2023; Blasco-Aróstegui *et al.*, 2025b). The estimated genetic divergence between these putative genera is comparable to the genetic divergence among the species of *Calchas* Birula, 1899, which were not assigned to different genera (Parmakelis *et al.*, 2022: 9, Figure 4). Therefore, *Anatoliurus* Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**, resulting in *Iurus kumlutasi* (Yağmur, Soleglad, Fet & Kovařík, 2015), **comb. nov.**]

Letoiurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022. Type species: *Protoiurus rhodiensis* Soleglad, Fet, Kovařík & Yağmur, 2012 = *Iurus rhodiensis* (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.**, by original designation. [The type species of this monotypic genus was originally assigned to *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012, synonymized above, hence *Letoiurus* Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**, resulting in *Iurus rhodiensis* (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.** The putative diagnostic characters separating this genus from *Iurus*, concerning minor, overlapping differences in total length, overlapping counts of pectinal teeth and prolateral denticles on the pedipalp chela movable finger, subtle differences in hemispermatophore shape, and the curvature and extent of the proximal gap between the fixed and movable fingers of the pedipalp chela of the adult male, while valid for species-level recognition, are inappropriate as generic-level characters (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b, 2001c; Monod & Volschenk, 2004; González-Santillán & Prendini, 2013; Blasco-Aróstegui & Prendini, 2023; Blasco-Aróstegui *et al.*, 2025b).]

Metaiurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022. Type species: *Protoiurus stathiae* Soleglad, Fet, Kovařík & Yağmur, 2012 = *Iurus stathiae* (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.**, by original designation. The type species of this genus was originally assigned to *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012, synonymized above, hence *Metaiurus* Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**, resulting in *Iurus stathiae* (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.** The putative diagnostic characters separating this genus from *Iurus*, concerning minor, overlapping differences in total length, overlapping counts of pectinal teeth and prolateral denticles on the pedipalp chela movable finger, subtle differences in hemispermatophore shape, and the curvature and extent of the proximal gap between the fixed and movable fingers of the pedipalp chela of the adult male, while valid for species-level recognition, are inappropriate as generic-level characters (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b, 2001c; Monod & Volschenk, 2004; González-Santillán & Prendini, 2013; Blasco-Aróstegui & Prendini, 2023; Blasco-Aróstegui *et al.*, 2025b).]

Superfamily **Scorpionoidea** Latreille, 1802
(7 extant families, 1 extinct family)

Family **Diplocentridae** Karsch, 1880a, **stat. rev.**[32]
(2 extant subfamilies)

Subfamily **Diplocentrinae** Karsch, 1880a
(9 extant genera)

Bioculus Stahnke, 1968 [5 extant species]. Type species: *Bioculus comondae* Stahnke, 1968, by original designation.

Cazierius Francke, 1978 [32 extant species]. Type species: *Diplocentrus gundlachii* Karsch, 1880a = *Cazierius gundlachii* (Karsch, 1880a), by original designation. [Francke (1978) differentiated *Cazierius* Francke, 1978, from *Heteronebo* Pocock, 1899a, primarily on the presence or absence of a transverse carina on the posteroventral surface of metasomal segment V, a character which varies among species of the former (Prendini, 2000). Following analyses which failed to recover the reciprocal monophyly of these genera, Prendini (2000) questioned the distinction between *Cazierius* and the New World species of *Heteronebo*, several of which were subsequently transferred from the latter to the former by Teruel (2005). In view of the absence of unambiguous diagnostic differences and phylogenetic support for a generic distinction among the New World species assigned to the two genera, the New World species of *Heteronebo* are hereby transferred to *Cazierius*, resulting in sixteen new combinations, including two subspecies which appear to be diagnosable from the nominotypical forms and are therefore elevated to the rank of species (Appendix 1).]

Cryptoiclus Teruel & Kovařík, 2012 [1 extant species]. Type species: *Cryptoiclus rodriguezi* Teruel & Kovařík, 2012, by original designation.

Didymocentrus Kraepelin, 1905 (part) [12 extant species]. Type species: *Scorpio* (*Buthus*) *lesueurii* Gervais, 1844 = *Didymocentrus lesueurii* (Gervais, 1844), by subsequent designation (Francke, 1978).

Diplocentrus Peters, 1861b [65 extant species]. Type species: *Diplocentrus mexicanus* Peters, 1861b, by subsequent designation (Stahnke, 1976). [The case for *Diplocentrus mexicanus* Peters, 1861b, being the correct type species of this genus was discussed by Stahnke (1976) and Francke (1977a). One subspecies is hereby synonymized (Appendix 1), based on examination of the type (ZMH 1006) and topotypes (AMNH).]

Troglopolyphemos Rossi, 2018b. Type species: *Diplocentrus actun* Armas & Palacios-Vargas, 2002 = *Diplocentrus anophthalmus* Francke, 1977b, **syn. nov.**, by original designation. [This monotypic genus was created for a troglobitic (eyeless, depigmented) species originally assigned to the genus *Diplocentrus* Peters, 1861b. Based on the diagnosis, the type species, *Diplocentrus actun* Armas & Palacios-Vargas, 2002, is conspecific with *Diplocentrus anophthalmus* Francke, 1977b, and is synonymized accordingly (Appendix 1). The placement of this species in *Diplocentrus* was confirmed by the phylogenetic analyses of Santibáñez-López *et al.* (2014b). Following an examination of type and nontype material (AMNH) of *D. anophthalmus*, Prendini *et al.* (2021) doubted the validity of *Troglopolyphemos* Rossi, 2018b, and retained its type species in *Diplocentrus*, consistent with Francke (1977b) and Santibáñez-López *et al.* (2014b). That decision is formalized as follows: *Troglopolyphemos* Rossi, 2018b = *Diplocentrus* Peters, 1861b, **syn. nov.**]

Heteronebo Pocock, 1899a [2 extant species]. Type species: *Heteronebo granti* Pocock, 1899a, by original designation. [This genus is hereby restricted to the Old World. See comments under *Cazierius* Francke, 1978 (above).]

Kolotl Santibáñez-López, Francke & Prendini, 2014c [2 extant species]. Type species: *Diplocentrus poncei* (Francke & Quijano-Ravell, 2009) = *Kolotl poncei* (Francke & Quijano-Ravell, 2009), by original designation.

Oiclus Simon, 1880 as *Oïclus* Simon, 1880 [9 extant species]. Type species: *Diplocentrus purvesii* Becker, 1880 = *Oiclus purvesii* (Becker, 1880), by monotypy. [The generic name was unjustifiably emended to *Oieclus* by Francke (1978); the diacritical marks on the "i" in Simon's (1880) original name are diaereses and are properly corrected by removal (Francke, 1985). One subspecies, which appears to be diagnosable from the nominotypical form, is hereby elevated to the rank of species (Appendix 1).]

Tarsoporosus Francke, 1978 [6 extant species]. Type species: *Diplocentrus kugleri* Schenkel, 1932 = *Tarsoporosus kugleri* (Schenkel, 1932), by original designation.

Subfamily **Nebinae** Kraepelin, 1905, **stat. rev.**[33]
(1 extant genus)

Nebo Simon, 1878 [10 extant species]. Type species: *Hemiscorpio hierichonticus* Simon, 1872a = *Nebo hierichonticus* (Simon, 1872a), by original designation. [As noted by Sissom & Fet (2000a), the name *Hemiscorpio* Simon, 1872a, is not a new generic name but an incorrect subsequent spelling of *Hemiscorpius* Peters, 1861a.]

Cyphocentrus Karsch, 1880a. Type species: *Diplocentrus sulcatus* Karsch, 1879b = *Nebo hierichonticus* (Simon, 1872a), by original designation. Synonymized by Kraepelin (1894).

Family **Hemiscorpiidae** Pocock, 1893b
(1 extant genus)

Hemiscorpius Peters, 1861a [20 extant species]. Type species: *Hemiscorpius lepturus* Peters, 1861a, by monotypy.

Habibiella Vachon, 1974. Type species: *Habibiella gaillardi* Vachon, 1974 = *Hemiscorpius gaillardi* (Vachon, 1974), by original designation. Synonymized by Monod & Lourenço (2005).

Family **Heteroscorpionidae** Kraepelin, 1905
(1 extant genus)

Heteroscorpion Birula, 1903b [6 extant species]. Type species: *Heteroscorpion madagascarense* Birula, 1903b = *Hadogenes opisthacanthoides* Kraepelin, 1896 = *Heteroscorpion opisthacanthoides* (Kraepelin, 1896), by original designation.

Family **Hormuridae** Laurie, 1896[34]
(3 extant subfamilies)

Subfamily **Hadogeninae** Lourenço, 1999b, **stat. rev.**[35]
(1 extant genus)

Hadogenes Kraepelin, 1894 [27 extant species, 1 *nomen dubium*]. Type species: *Scorpio* (*Ischnurus*) *trichiurus* Gervais, 1843 = *Hadogenes trichiurus* (Gervais, 1843), by original designation. [Based on examination of types (AMGS, NMSA, SAMC, TMSA) and topotypes (AMNH), two species are revalidated, six subspecies are elevated to the rank of species, and one subspecies is synonymized (Appendix 1).

Subfamily **Hormurinae** Laurie, 1896
(3 extant genera)

Hormiops Fage, 1933 [2 extant species]. Type species: *Hormiops davidovi* Fage, 1933, by original designation.

Hormurus Thorell, 1876a [29 extant species]. Type species: *Ischnurus caudicula* L. Koch, 1867 = *Hormurus waigiensis* (Gervais, 1843), by original designation. [*Hadogenes trichiurus paucidens* Werner, 1939b, is transferred to *Hormurus* Thorell, 1876a, based on examination of the holotype (ZFMK Sc207), resulting in *Hormurus paucidens* (Werner, 1939b), **comb. nov. et stat. rev.** Consequently, *Hadogenes trichiurus werneri* Fet, 1997a, introduced as a replacement name for *H. trichiurus paucidens*, in turn considered by Fet (1997a) to be a junior homonym of *Hadogenes paucidens* Pocock, 1896a, is synonymized with *Hormurus paucidens* (Werner, 1939b), hence *Hadogenes trichiurus werneri* Fet, 1997a = *Hormurus paucidens* (Werner, 1939b), **syn. nov.** *Hormurus paucidens* (Werner, 1939b) may ultimately prove to be synonymous with another species of the genus.]

Sisyphus C.L. Koch, 1837a [*lapsus calami*]. [The name *Sisyphus* C.L. Koch, 1837a, was used in the legend to C.L. Koch's (1837a) figure 69, whereas *Ischnurus* C.L. Koch, 1837a, was used in the text. Fet (2000a) considered the name *Sisyphus* a *lapsus calami*; also see Pocock (1902b). It is not available and does not enter synonymy or homonymy.]

Liocheles Sundevall, 1833, as *Scorpio* (*Liocheles*) Sundevall, 1833 [5 extant species]. Type species: *Scorpio australasiae* Fabricius, 1775 = *Scorpio* (*Liocheles*) *australasiae* Fabricius, 1775 = *Liocheles australasiae* (Fabricius, 1775), by monotypy. [One subspecies is synonymized (Appendix 1), due to the absence of a convincing diagnosis.]

Ischnurus C.L. Koch, 1837a. Type species: *Ischnurus complanatus* C.L. Koch, 1837a = *Liocheles australasiae* (Fabricius, 1775), by subsequent designation (Pocock, 1902b). Synonymized by Pocock (1902b).

Tibetiomachus Lourenço & Qi, 2006. Type species: *Tibetiomachus himalayensis* Lourenço & Qi, 2006 = *Liocheles nigripes* (Pocock, 1897a), **syn. nov.**, by original designation. [Tang (2022b, 2025) considered this monotypic genus and its type species *nomina dubia*, further suggesting that it is probably a junior synonym of *Liocheles nigripes* (Pocock, 1897a). The same conclusion was reached independently by L. Monod (pers. comm.) and by the author based on the original description, which closely matches the holotype (BMNH 1896.9.26.84) and nontype material (AMNH, BMNH, CAS) of *L. nigripes* in numerous characters, among the most important being the metasomal carination, telotarsal spination, and positions of trichobothria on the pedipalp chela, which are consistent with the genus *Liocheles*, and the distinctive shape of the pedipalp chela, with rounded prolateral surfaces, which is consistent with *L. nigripes*. The type locality of *T. himalayensis* falls within the geographical distribution of *L. nigripes*. For these reasons, *Tibetiomachus himalayensis* Lourenço & Qi, 2006 = *Liocheles nigripes* (Pocock, 1897a), **syn. nov.**, and *Tibetiomachus* Lourenço & Qi, 2006 = *Liocheles* Sundevall, 1833, **syn. nov.**]

Subfamily **Opisthacanthinae**
Kraepelin, 1905, **stat. rev.**[36]
(6 extant genera)

Cheloctonus Pocock, 1892 [19 extant species]. Type species: *Cheloctonus jonesii* Pocock, 1892, by monotypy.

Nepabellus Francke, 1974. Type species: *Opisthacanthus africanus* Simon, 1876 = *Opisthacanthus* (*Nepabellus*) *africanus* Simon, 1876 = *Cheloctonus africanus* (Simon, 1876), **comb. nov.**, by original designation. [*Nepabellus* Francke, 1974, was introduced as a replacement name for *Opisthocentrus* Pocock, 1893b, and subsequently relegated to a subgenus of *Opisthacanthus* Peters, 1861b, by Lourenço (1991a). Based on the phylogenetic analyses of Prendini (2000) and examination of type and non-type material (AMNH, BMNH and MRAC) of *Cheloctonus jonesii* Pocock, 1892, and *Opisthacanthus africanus* Simon, 1876, it is evident that whereas these taxa share many synapomorphies, *e.g.*, concerning pedipalp carination, trichobothrial positions, telotarsal armature (Prendini, 2000), they cannot be reliably separated by the single putative diagnostic character, *i.e.*, the single vs. double median denticle row on the pedipalp chela movable finger (*e.g.*, see Lawrence, 1955). Therefore, *Nepabellus* Francke, 1974 = *Cheloctonus* Pocock, 1892, **syn. nov.**, resulting in twelve new combinations (Appendix 1). In addition, one subspecies is elevated to the rank of species, and three subspecies are synonymized, based on examination of types and topotypes (AMGS, AMNH, BMNH, NMSA, SAMC, TMSA).]

Opisthocentrus Pocock, 1893b (part). Type species: *Opisthacanthus africanus* Simon, 1876 = *Cheloctonus africanus* (Simon, 1876), by original designation. [Junior homonym of *Opisthocentrus* Kner, 1868 (Pisces).]

Chiromachetes Pocock, 1899e [5 extant species]. Type species: *Chiromachetes fergusoni* Pocock, 1899e, by monotypy. [One species, which was not monophyletic with the type species in the analyses of Prendini (2000), is hereby transferred to *Iomachus* Pocock, 1893b, resulting in a new combination (Appendix 1).]

Chiromachus Pocock, 1893b [1 extant species]. Type species: *Ischnurus ochropus* C.L. Koch, 1837c = *Chiromachus ochropus* (C.L. Koch, 1837c), by original designation.

Iomachus Pocock, 1893b [9 extant species]. Type species: *Hormurus laeviceps* Pocock, 1890b = *Iomachus laeviceps* (Pocock, 1890b), by original designation. [Consistent with the phylogenetic analyses of Prendini (2000), one species is hereby transferred from *Chiromachetes* Pocock, 1899e, resulting in *Iomachus tirupati* (Lourenço, 1997f), **comb. nov.** (Appendix 1). Additionally, one subspecies is synonymized with the nominotypical form (Appendix 1), from which it cannot be consistently diagnosed.]

Opisthacanthus Peters, 1861b [11 extant species]. Type species: *Ischnurus elatus* Gervais, 1844 = *Opisthacanthus elatus* (Gervais, 1844), by monotypy.

Dacurus Peters, 1861b. Type species: *Dacurus galbineus* Peters, 1861b [*nec Centrurus galbineus* C.L. Koch, 1838] = *Opisthacanthus elatus* (Gervais, 1844), by original designation. Synonymized by Karsch (1879a) as *Opisthacanthus lepturus* (Beauvois, 1805). [Peters (1861b) suggested that *Centrurus sensu* C.L. Koch, 1838, was a different genus from *Centrurus* Ehrenberg, in Hemprich & Ehrenberg, 1829, and introduced a replacement name, *Dacurus* Peters, 1861b, with "*Centrurus galbineus* C.L. Koch, 1838 from Central America" as type species. Karsch (1879a) studied the collections of Peters (1861b) and discovered that the Central American specimens upon which the genus *Dacurus* was based, were misidentified (*i.e.*, not conspecific with *Centrurus galbineus* C.L. Koch, 1838). Karsch (1879a) demonstrated that *Dacurus galbineus sensu* Peters, 1861b belonged to the genus *Opisthacanthus* (Hormuridae Laurie, 1896), and introduced a replacement name, *Caucon* Karsch, 1879a, for *Centrurus sensu* C.L. Koch, 1838. Both the latter names are considered junior synonyms of *Heterometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828 (Scorpionidae Latreille, 1802) (Fet, 2000a).]

Metascorpiops Toledo-Piza, 1972. Type species: *Metascorpiops margaritatus* Toledo-Piza, 1972 = *Opisthacanthus cayaporum* Vellard, 1932. Synonymized by Lourenço (1987b).

Palaeocheloctonus Lourenço, 1996c [17 extant species]. Type species: *Palaeocheloctonus pauliani* Lourenço, 1996c, by original designation.

Opisthacanthus (*Monodopisthacanthus*) Lourenço, 2001e. Type species: *Opisthacanthus madagascariensis* Kraepelin, 1894 = *Opisthacanthus* (*Monodopis-thacanthus*) *madagascariensis* Kraepelin, 1894 = *Palaeocheloctonus madagascariensis* (Kraepelin, 1894), **comb. nov.**, by original designation. [Although these taxa were not explicitly compared in the original diagnosis of *Palaeocheloctonus* Lourenço, 1996c, it is evident, based on the phylogenetic analyses of Prendini (2000) and examination of type and non-type material (AMNH, CAS, MNHN, ZMB, ZMH) that *Palaeocheloctonus pauliani* Lourenço, 1996c, and *Opisthacanthus madagascariensis* Kraepelin, 1894, are congeneric and cannot be reliably separated by the

putative diagnostic characters provided by Lourenço (1996c) for *Palaeocheloctonus*: size (ca. 50–60 mm in total length); surfaces of soma and appendages "very sparsely sculptured", almost smooth; and single vs. double median denticle row on the pedipalp chela movable finger. Therefore, *Opisthacanthus* (*Monodopisthacanthus*) Lourenço, 2001e = *Palaeocheloctonus* Lourenço, 1996c, **syn. nov.**, resulting in fourteen new combinations (Appendix 1). As *Opisthacanthus* (*Monodopisthacanthus*) *pauliani* Lourenço & Goodman, 2008, is a junior homonym of *Palaeocheloctonus pauliani* Lourenço, 1996c, the following replacement name is hereby introduced for the latter: *Palaeocheloctonus kraepelini*, **nom. nov.**]

Family †**Protoischnuridae** Carvalho & Lourenço, 2001
(3 extinct genera)

†***Cretaceoushormiops*** Lourenço, 2018 [4 extinct species]. Type species: †*Cretaceushormiops knodeli* Lourenço, 2018, by original designation.

†***Cretaceousopisthacanthus*** Lourenço, in Lourenço & Velten, 2021 [1 extinct species]. Type species: †*Cretaceousopisthacanthus smeelei* Lourenço, in Lourenço & Velten, 2021, by original designation.

†***Protoischnurus*** Carvalho & Lourenço, 2001 [1 extinct species]. Type species: †*Protoischnurus axelrodorum* Carvalho & Lourenço, 2001, by original designation.

Family **Rugodentidae** Bastawade, Sureshan & Radhakrishnan, 2005
(1 extant genus)

Rugodentus Bastawade, Sureshan & Radhakrishnan, 2005 [1 extant species]. Type species: *Rugodentus keralaensis* Bastawade, Sureshan & Radhakrishnan, 2005, by original designation. [The validity of this genus was confirmed by Prendini & Loria (2020).]

Family **Scorpionidae** Latreille, 1802
(4 extant subfamilies, 2 extinct genera *incertae sedis*)

Incertae sedis

†***Mioscorpio*** Kjellesvig-Waering, 1986 [1 extinct species]. Type species: †*Scorpio zeuneri* Hadži, 1931 = †*Mioscorpio zeuneri* (Hadži, 1931), by original designation.

†***Sinoscorpius*** Hong, 1983 [1 extinct species]. Type species: †*Sinoscorpius shandongensis* Hong, 1983, as †*Sinoscorpius shandongense* Hong, 1983 (see Fet, 2000b), by original designation.

Subfamily **Heterometrinae** Simon, 1879
(7 extant genera)

Heterometrus Ehrenberg, in Hemprich & Ehrenberg, 1828, as *Buthus* (*Heterometrus*) Ehrenberg, in Hemprich & Ehrenberg, 1828 (part) [9 extant species].[37] Type species: *Buthus* (*Heterometrus*) *spinifer* Ehrenberg, in Hemprich & Ehrenberg, 1828 = *Heterometrus spinifer* (Ehrenberg, in Hemprich & Ehrenberg, 1828), by subsequent designation (Karsch, 1879a).

Centrurus Ehrenberg, in Hemprich & Ehrenberg, 1829. Type species: *Centrurus galbineus* C.L. Koch, 1838 = *Heterometrus longimanus* (Herbst, 1800), by subsequent monotypy. Synonymized by Fet (2000b). [The name *Centrurus* Ehrenberg, in Hemprich & Ehrenberg, 1829, has long been a subject of confusion (Fet, 2000b). Its type was not designated in the original description but was subsequently fixed by monotypy as *Centrurus galbineus* C.L. Koch, 1838 (without a type locality). Later, Peters (1861b) considered *Centrurus sensu* C.L. Koch, 1838, to be a different genus from Ehrenberg's (1829), and introduced a replacement name, *Dacurus* Peters, 1861b, with "*Centrurus galbineus* C.L. Koch, 1838 from Central America" as type species. Karsch (1879a) demonstrated that *Dacurus galbineus sensu* Peters, 1861b, belonged to genus *Opisthacanthus* Peters, 1861b (Hormuridae Laurie, 1896), and introduced a replacement name, *Caucon* Karsch, 1879a, for *Centrurus sensu* C.L. Koch, 1838. Kraepelin (1894) subsequently demonstrated that *Centrurus galbineus* C.L. Koch, 1838, was a synonym of the Asian *Heterometrus longimanus* (Herbst, 1800). Meanwhile, Thorell (1876a) incorrectly fixed the type species of *Centrurus* as *Androctonus biaculeatus* Lucas, 1835, currently *Centruroides gracilis* (Latreille, 1804) (Buthidae C.L. Koch, 1837a). Many authors have since regarded *Centrurus* as the senior synonym of *Centruroides* Marx, 1890a, when, in fact, it is a junior synonym of *Heterometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828, although that was not Ehrenberg's (1829) intention (Fet, 2000b).]

Palamnaeus Thorell, 1876a. Type species: *Palamnaeus petersii* Thorell, 1876a = *Heterometrus petersii* (Thorell, 1876a), by original designation. Synonymized by Karsch (1879a).

Caucon Karsch, 1879a. Type species: *Centrurus galbineus* C.L. Koch, 1838 = *Heterometrus longimanus* (Herbst, 1800), by original designation. Synonymized by Kraepelin (1894).

Chersonesometrus Couzijn, 1978, as *Heterometrus* (*Chersonesometrus*) Couzijn, 1978 [10 extant species]. Type species: *Buthus fulvipes* C.L. Koch, 1837c = *Heterometrus* (*Chersonesometrus*) *fulvipes* (C.L. Koch, 1837c) = *Chersonesometrus fulvipes* (C.L. Koch, 1837c), by original designation.

Deccanometrus Prendini & Loria, 2020 [7 extant species]. Type species: *Scorpio latimanus* Pocock, 1894 = *Deccanometrus latimanus* (Pocock, 1894), by original designation.

Gigantometrus Couzijn, 1978, as *Heterometrus* (*Gigantometrus*) Couzijn, 1978 [2 extant species]. Type species: *Heterometrus swammerdami* Simon, 1872b = *Heterometrus* (*Gigantometrus*) *swammerdami* (Simon, 1872b) = *Gigantometrus swammerdami* (Simon, 1872b), by original designation.

Javanimetrus Couzijn, 1981, as *Heterometrus* (*Javanimetrus*) Couzijn, 1981 [1 extant species]. Type species: *Buthus cyaneus* C.L. Koch, 1836 = *Heterometrus* (*Javanimetrus*) *cyaneus* (C.L. Koch, 1836) = *Javanimetrus cyaneus* (C.L. Koch, 1836), by original designation.

Sahyadrimetrus Prendini & Loria, 2020 [6 extant species]. Type species: *Pandinus scaber* Thorell, 1876b = *Sahyadrimetrus scaber* (Thorell, 1876b), by original designation.

Srilankametrus Couzijn, 1981, as *Heterometrus* (*Srilankametrus*) Couzijn, 1981 [7 extant species]. Type species: *Scorpio indus* DeGeer, 1778 = *Heterometrus* (*Srilankametrus*) *indus* (DeGeer, 1778) = *Srilankametrus indus* (DeGeer, 1778), by original designation.

Subfamily **Opistophthalminae** Rossi, 2016
(1 extant genus)

Opistophthalmus C.L. Koch, 1837a [60 extant species]. Type species: *Scorpio capensis* Herbst, 1800 = *Opistophthalmus capensis* (Herbst, 1800), by original designation. [The original spelling *Opistophthalmus* C.L. Koch, 1837a, was changed to *Opisthophthalmus* by later authors who considered C.L. Koch's (1837a) name an improper Latinization. This spelling was rejected by Francke (1985) as an unjustified emendation.]

Atreus C.L. Koch, 1837a [*lapsus calami*]. [This name was created in a figure legend instead of *Opistophthalmus* C.L. Koch, 1837a, and explicitly refers to *Opistophthalmus capensis* (Herbst, 1800). It is not available under C.L. Koch's (1837a) authorship (Fet, 2000b).]

Miaephonus Thorell, 1876a. Type species: *Miaephonus wahlbergii* Thorell, 1876a = *Opistophthalmus wahlbergii* (Thorell, 1876a), by original designation. Synonymized by Kraepelin (1894).

Petrooicus Karsch, 1879b [*nec Petroica* Swainson, 1829 (Aves)]. Type species: *Heterometrus carinatus* Peters, 1861b = *Petrooicus carinatus* (Peters, 1861b) = *Opistophthalmus carinatus* (Peters, 1861b), by original designation. Synonymized by Pocock (1893c). [*Petrovicus* is an incorrect subsequent spelling of this name by Simon (1888).]

Mossamedes Simon, 1888. Type species: *Mossamedes opinatus* Simon, 1888 = *Opistophthalmus opinatus* (Simon, 1888), by monotypy. Synonymized by Pocock (1893c).

Oecopetrus Pocock, 1893b. Type species: *Petrooicus carinatus* (Peters, 1861b) = *Oecopetrus carinatus* (Peters, 1861b) = *Opistophthalmus carinatus* (Peters, 1861b), by original designation. Synonymized by Kraepelin (1899). [Replacement name for *Petrooicus* Karsch, 1879b, mistakenly believed by Pocock (1893c) to be a homonym of *Petroica* Swainson, 1829 (Aves). However, these two names are not homonyms (Francke, 1985).]

Protophthalmus Lawrence, 1969. Type species: *Protophthalmus holmi* Lawrence, 1969 = *Opistophthalmus holmi* (Lawrence, 1969), by original designation. Synonymized by Newlands (1972).

Subfamily **Pandininae** Thorell, 1876a
(7 extant genera)

Pandiborellius Rossi, 2015b, as *Pandinurus* (*Pandiborellius*) Rossi, 2015b [10 extant species]. Type species: *Pandinus magrettii* Borelli, 1901a = *Pandinus* (*Pandinurus*) *magrettii* (Borelli, 1901a) = *Pandinurus* (*Pandiborellius*) *magrettii* (Borelli, 1901a) = *Pandiborellius magrettii* (Borelli, 1901a), by original designation.

Pandinurus (*Pandicaporiaccous*) Rossi, 2015b. Type species: *Pandinurus* (*Pandicaporiaccous*) *janae* Rossi, 2015b = *Pandiborellius percivali* (Pocock, 1902b), by original designation. Synonymized by Prendini (2016).

Pandinurus (*Pandipavesius*) Rossi, 2015e. Type species: *Pandinus* (*Pandinurus*) *nistriae* Rossi, 2014b = *Pandinurus* (*Pandipavesius*) *nistriae* (Rossi, 2014b) = *Pandiborellius nistriae* (Rossi, 2014b), by original designation. Synonymized by Kovařík *et al.* (2017a).

Pandinoides Fet, 1997a, as *Pandinus* (*Pandinoides*) Fet, 1997a [5 extant species]. Type species: *Pandinus militaris* Pocock, 1900d = *Pandinus* (*Pandinoides*) *militaris* (Pocock, 1900d) = *Pandinoides militaris* (Pocock, 1900d), by subsequent designation (Fet, 2000b). [The name *Pandinus* (*Pandinoides*) as published by Vachon (1974) is not available because

its type species was not designated. Fet (1997a) designated the type species as *Scorpio exitialis* Pocock, 1888, in error (Fet, 2000b); it should be *Pandinus militaris* Pocock, 1900d.]

Pandinoides (*Dunlopandinoides*) Rossi, 2016. Type species: *Pandinoides* (*Dunlopandinoides*) *eugeniae* Rossi, 2016 = *Pandinoides eugeniae* (Rossi, 2016), by original designation. Synonymized by Prendini & Loria (2020). [Examination of the holotype (ZMB 15009) of the type species confirmed the synonymy of Prendini & Loria (2020). The weakly developed depression on the pedipalp chela manus of the type species is insufficient to justify its recognition above the rank of species.]

Pandinops Birula, 1913, as *Pandinus* (*Pandinops*) Birula, 1913 [9 extant species, 1 *nomen dubium*]. Type species: *Pandinus peeli* Pocock, 1900d = *Pandinus* (*Pandinops*) *peeli* (Pocock, 1900d) = *Pandinops peeli* (Pocock, 1900d), by indication.

Pandinopsis Vachon, 1974, as *Pandinus* (*Pandinopsis*) Vachon, 1974 [1 extant species]. Type species: *Scorpio dictator* Pocock, 1888 = *Pandinus* (*Pandinopsis*) *dictator* (Pocock, 1888) = *Pandinopsis dictator* (Pocock, 1888), by original designation.

Pandinurus Fet, 1997a, as *Pandinus* (*Pandinurus*) Fet, 1997a [15 extant species].[38] Type species: *Scorpio exitialis* Pocock, 1888 = *Pandinus* (*Pandinurus*) *exitialis* (Pocock, 1888) = *Pandinurus exitialis* (Pocock, 1888), by original designation. [The name *Pandinus* (*Pandinurus*) as published by Vachon (1974) is not available because its type species was not designated. Fet (1997a) designated the type species as *Pandinus militaris* Pocock, 1900d, in error (Fet, 2000b); it should be *Scorpio exitialis* Pocock, 1888.]

Pandinus (*Pandinoriens*) Rossi, 2015d. Type species: *Pandinus* (*Pandinoriens*) *riccardoi* Rossi, 2015d = *Pandinurus riccardoi* (Rossi, 2015d), by original designation. Synonymized by Kovařík *et al.* (2017a).

Pandinus Thorell, 1876a [5 extant species]. Type species: *Pandinus africanus* [a pre-1758 name] = *Buthus imperator* C.L. Koch, 1841 = *Pandinus imperator* (C.L. Koch, 1841), by original designation.

Pandipalpus Rossi, 2015b, as *Pandinurus* (*Pandipalpus*) Rossi, 2015b [1 extant species].[39] Type species: *Scorpio viatoris* Pocock, 1890d = *Pandinurus* (*Pandipalpus*) *viatoris* (Pocock, 1890d) = *Pandipalpus viatoris* (Pocock, 1890d), by original designation.

Subfamily **Scorpioninae** Latreille, 1802
(1 extant genus)

Scorpio Linnaeus, 1758 (part) [34 extant species, 2 *nomina dubia*].[40] Type species: *Scorpio maurus* Linnaeus, 1758, by subsequent designation (Karsch, 1879a). [Latreille (1810) designated *Scorpio europaeus* Linnaeus, 1758, as the type species of *Scorpio* Linnaeus, 1758. ICZN (1928) Opinion 104 placed this genus on the Official List of Generic Names in Zoology with *S. europaeus* as type species. The case was discussed in detail by the ICZN (1957a) which considered an application by Hemming (1955) and validated Karsch's (1879a) decision on the selection of *Scorpio maurus* Linnaeus, 1758, as type species. The ICZN (1957a) also suppressed "the specific name *europaeus* Linnaeus, 1758, as published in the combination *Scorpio europaeus*", in amendment of a ruling by the ICZN (1928). Consistent with the elevation of other former subspecies of *Scorpio*, five subspecies (including two *nomina dubia*) are elevated to the rank of species (Appendix 1).]

Jordanius Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024. Type species: *Scorpio granulomanus* Al-Saraireh, Yağmur, Abu Afifeh & Amr, 2023, by original designation. [The monophyly and generic diagnosis of *Scorpio* Linnaeus, 1758, were well established by previous phylogenetic analyses (Prendini, 2000; Prendini *et al.*, 2003; Prendini & Loria, 2020), whereas *Jordanius* Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024, was erected without similar evidence. Based on the diagnoses and examination of topotypes of the type species (AMNH) of this putative genus, both species assigned to it are clearly congeneric with *Scorpio*, sharing numerous diagnostic synapomorphies with the latter, including pedipalp chela with distinct digital carina, sternite VII with paired ventrosubmedian and ventrolateral carinae, pedipalps orthobothriotaxic Type C, counts of ventrosubmedian spiniform macrosetae increasing from telotarsi I and II to III and IV, etc. Therefore *Jordanius* Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024 = *Scorpio* Linnaeus, 1758, **syn. nov.**, resulting in *Scorpio maysaraensis* (Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024), **comb. nov.**]

Family **Urodacidae** Pocock, 1893b, **stat. rev.**[41]
(2 extant genera)

Aops Volschenk & Prendini, 2008 [1 extant species]. Type species: *Aops oncodactylus* Volschenk & Prendini, 2008, by original designation.

Urodacus Peters, 1861b [23 extant species]. Type species: *Urodacus novaehollandiae* Peters, 1861b, by monotypy.

Ioctonus Thorell, 1876a. Type species: *Ioctonus manicatus* Thorell, 1876a = *Urodacus manicatus* (Thorell, 1876a), by original designation. Synonymized by Pocock (1898d).

Iodacus Pocock, 1891b. Type species: *Iodacus darwinii* Pocock, 1891b = *Urodacus hoplurus* Pocock, 1898d, by monotypy. Synonymized by Pocock (1893b).

Hemihoplopus Birula, 1903c. Type species: *Hemihoplopus yaschenkoi* Birula, 1903c = *Urodacus yaschenkoi* (Birula, 1903c), by monotypy. Synonymized by Kraepelin (1908).

Superfamily **Superstitionioidea** Stahnke, 1940[42]
(1 extant family)

Family **Superstitioniidae** Stahnke, 1940
(1 extant genus)

Superstitionia Stahnke, 1940 [1 extant species]. Type species: *Superstitionia donensis* Stahnke, 1940, by original designation.

Diplops Mulaik & Higgins, 1944. Type species: *Diplops desertorum* Mulaik & Higgins, 1944 = *Superstitionia donensis* Stahnke, 1940, by original designation. Synonymized by Stahnke (1949).

Superfamily **Vaejovoidea** Thorell, 1876a
(1 extant family)

Family **Vaejovidae** Thorell, 1876a
(4 extant subfamilies)

Subfamily **Smeringurinae** Soleglad & Fet, 2008
(3 extant genera)

Paruroctonus Werner, 1934 [36 extant species]. Type species: *Uroctonoides gracilior* Hoffmann, 1931 = *Paruroctonus gracilior* (Hoffmann, 1931), by original designation. [The date of publication is unclear as Werner (1934) was published in three parts from 1934 to 1935. The date "January 1934" is found in the preface to the first part, and the description of *Paruroctonus* Werner, 1934, is in the second part, but it appears to be impossible to clarify the publication date for this part, and Article 21c of the ICZN (1985, 1999) specifies that 31 December 1934 must be accepted as the official date. According to Sissom (2000b), a petition was submitted to the ICZN to conserve *Paruroctonus* as the valid genus name, rather than *Hoffmanniellius* Mello-Leitão, 1934a, because of its universal usage. Following examination of the types (AMNH, CAS), four subspecies, each diagnosable from the nominotypical form, are elevated to the rank of species (Appendix 1).]

Uroctonoides Hoffmann, 1931. Type species: *Uroctonoides gracilior* Hoffmann, 1931 = *Paruroctonus gracilior* (Hoffmann, 1931), by original designation. [Junior homonym of *Uroctonoides* Chamberlin, 1920 = *Teuthraustes* Simon, 1878.] Synonymized by Werner (1934).

Hoffmanniellius Mello-Leitão, 1934a. [Replacement name for *Uroctonoides* Hoffmann, 1931).] Synonymized by Stahnke (1957).

Smeringurus Haradon, 1983, as *Paruroctonus* (*Smeringurus*) Haradon, 1983 [4 extant species]. Type species: *Paruroctonus vachoni* Stahnke, 1961 = *Paruroctonus* (*Smeringurus*) *vachoni* Stahnke, 1961 = *Smeringurus vachoni* (Stahnke, 1961), by original designation.

Vejovoidus Stahnke, 1974 [1 extant species]. Type species: *Syntropis longiunguis* Williams, 1969 = *Vejovoidus longiunguis* (Williams, 1969), by monotypy.

Subfamily **Stahnkeinae**
Soleglad & Fet, 2006, **stat. nov.**[43]
(3 extant genera)

Gertschius Graham & Soleglad, 2007 [1 extant species]. Type species: *Gertschius crassicorpus* Graham & Soleglad, 2007, by original designation. [This genus is hereby restricted to the type species, the phylogenetic position of which remains to be tested.]

Serradigitus Stahnke, 1974 [26 extant species]. Type species: *Vejovis wupatkiensis* Stahnke, 1940 = *Serradigitus wupatkiensis* (Stahnke, 1940), by original designation. [*Serradigitus agilis* Sissom & Stockwell, 1991, was transferred to *Gertschius* Graham & Soleglad, 2007, based on variable characters of pedipalp chela dentition and pectinal tooth structure, and in the absence of evidence for reciprocal monophyly. Following examination of holotypes, paratypes, and topotypes (AMNH, CAS), this species is returned to *Serradigitus* Stahnke, 1974, and one subspecies, which is diagnosable from the nominotypical form, is elevated to the rank of species (Appendix 1).]

Stahnkeus Soleglad & Fet, 2006. Type species: *Vejovis harbisoni* Williams, 1970a = *Serradigitus harbisoni* (Williams, 1970a), by original designation. [Soleglad & Fet (2006: 29) created this genus to accommodate five species previously assigned to *Serradigitus* Stahnke, 1974, which share a single putative synapomorphy: pedipalp chela fingers with irregular number of prolateral accessory denticles. No evidence was presented to demonstrate reciprocal monophyly with the remaining species of *Serradigitus*, which possess the putatively plesiomorphic state and appear to be paraphyletic with respect to *Stahnkeus*

Soleglad & Fet, 2006. To restore the monophyly of *Serradigitus*, *Stahnkeus* Soleglad & Fet, 2006 = *Serradigitus* Stahnke, 1974, **syn. nov.**]

Wernerius Soleglad & Fet, 2008 [3 extant species]. Type species: *Vaejovis spicatus* Haradon, 1974 = *Wernerius spicatus* (Haradon, 1974), by original designation.

Subfamily **Syntropinae** Kraepelin, 1905[44]
(11 extant genera)

Balsateres González-Santillán & Prendini, 2013 [1 extant species]. Type species: *Vaejovis cisnerosi* Ponce-Saavedra & Sissom, 2004 = *Balsateres cisnerosi* (Ponce-Saavedra & Sissom, 2004), by original designation.

Chihuahuanus González-Santillán & Prendini, 2013 [8 extant species]. Type species: *Vaejovis bilineatus* Pocock, 1898b = *Chihuahuanus bilineatus* (Pocock, 1898b), by original designation.

Kochius Soleglad & Fet, 2008 [10 extant species]. Type species: *Buthus punctipalpi* Wood, 1863 = *Kochius punctipalpi* (Wood, 1863), by original designation.

Konetontli González-Santillán & Prendini, 2013 [10 extant species]. Type species: *Vaejovis pattersoni* Williams & Lee, in Williams, 1980 = *Konetontli pattersoni* (Williams & Lee, in Williams, 1980), by original designation.

Kuarapu Francke & Ponce-Saavedra, 2010 [1 extant species]. Type species: *Kuarapu purhepecha* Francke & Ponce-Saavedra, 2010, by original designation.

Maaykuyak González-Santillán & Prendini, 2013 [2 extant species]. Type species: *Vejovis vittatus* Williams, 1970a = *Maaykuyak vittatus* (Williams, 1970a), by original designation.

Mesomexovis González-Santillán & Prendini, 2013 [8 extant species]. Type species: *Vaejovis punctatus* Karsch, 1879b = *Mesomexovis punctatus* (Karsch, 1879b), by original designation.

Paravaejovis Williams, 1980 [12 extant species]. Type species: *Vejovis pumilis* Williams, 1970a = *Paravaejovis pumilis* (Williams, 1970a), by original designation.

Lissovaejovis Ponce-Saavedra & Beutelspacher-Baigts, 2001 [*nomen nudum*]. [This name was published by Ponce-Saavedra & Beutelspacher-Baigts (2001) without designating a type species. However, it first appeared in the unpublished Ph.D. dissertation of Stockwell (1989), in which the type species was intended to be *Buthus eusthenura* Wood, 1863 = *Paravaejovis eusthenura* (Wood, 1863).]

Hoffmannius Soleglad & Fet, 2008. Type species: *Buthus eusthenura* Wood, 1863 = *Hoffmannius eusthenura* (Wood, 1863) = *Paravaejovis eusthenura* (Wood, 1863), by original designation. Synonymized by González-Santillán & Prendini (2013).

Syntropis Kraepelin, 1900 [3 extant species]. Type species: *Syntropis macrura* Kraepelin, 1900, by monotypy.

Thorellius Soleglad & Fet, 2008 [5 extant species]. Type species: *Vejovis intrepidus* Thorell, 1876a = *Thorellius intrepidus* (Thorell, 1876a), by original designation.

Vizcaino González-Santillán & Prendini, 2013 [1 extant species]. Type species: *Vejovis vizcainensis* Williams, 1970a = *Vizcaino vizcainensis* (Williams, 1970a), by original designation.

Subfamily **Vaejovinae** Thorell, 1876a
(6 extant genera)

Catalinia Soleglad, Ayrey, Graham & Fet, 2017 [16 extant species]. Type species: *Vejovis minimus* Kraepelin, 1911 = *Catalinia minima* (Kraepelin, 1911), by original designation.

Ruberhieronymus Rossi, 2018b. Type species: *Uroctonus apacheanus* Gertsch & Soleglad, 1972 = *Ruberhieronymus apacheanus* (Gertsch & Soleglad, 1972) = *Catalinia apacheanus* (Gertsch & Soleglad, 1972), **comb. nov.**, by original designation. [Rossi (2018b) based this genus on *Pseudouroctonus apacheanus* (Gertsch & Soleglad, 1972) and assigned three other species to it: *Pseudouroctonus brysoni* Ayrey & Soleglad, 2017; *Pseudouroctonus kremani* Ayrey & Soleglad, 2015; *Pseudouroctonus santarita* Ayrey & Soleglad, 2015. Ayrey *et al.* (2021) mistakenly synonymized the genus with *Pseudouroctonus* Stahnke, 1974. Based on examination of type and nontype material (AMNH, ZMH), however, the type species of *Ruberhieronymus* Rossi, 2018b, and *Catalinia* Soleglad, Ayrey, Graham & Fet, 2017, both originally assigned to the *minimus* group of *Vaejovis* C.L. Koch, 1836 (see Williams & Savary, 1991; Sissom, 2000b; Francke & Savary, 2006), are congeneric. This is also consistent with the phylogenetic analyses of Bryson *et al.* (2013). Therefore *Ruberhieronymus* Rossi, 2018b = *Catalinia* Soleglad, Ayrey, Graham & Fet, 2017, **syn. nov.** Eleven new combinations are created by transferring species of the former *minimus* group from *Pseudouroctonus* to *Catalinia* (Appendix 1).]

Graemeloweus Soleglad, Fet, Graham & Ayrey, 2016 [3 extant species]. Type species: *Vejovis iviei* Gertsch & Soleglad, 1972 = *Graemeloweus iviei* (Gertsch & Soleglad, 1972), by original designation.

Kovarikia Soleglad, Fet & Graham, 2014 [5 extant species]. Type species: *Uroctonus williamsi* Gertsch & Soleglad, 1972 = *Kovarikia williamsi* (Gertsch & Soleglad, 1972), by original designation.

Pseudouroctonus Stahnke, 1974 [2 extant species]. Type species: *Vaejovis reddelli* Gertsch & Soleglad, 1972 = *Pseudouroctonus reddelli* (Gertsch & Soleglad, 1972), by original designation. [Based on the arguments of Francke & Savary (2006) and the phylogenetic analyses of Bryson *et al.* (2013, 2014), this genus is hereby restricted to the type species and *Pseudouroctonus sprousei* Francke & Savary, 2006.]

Uroctonites Williams & Savary, 1991 [4 extant species]. Type species: *Uroctonites giulianii* Williams & Savary, 1991, by original designation.

Vaejovis C.L. Koch, 1836 [81 extant species]. Type species: *Vaejovis mexicanus* C.L. Koch, 1836, by monotypy. [As discussed by Francke (1977c), the correct spelling is *Vaejovis* whereas *Vejovis*, used by many authors, is an unjustified emendation.]

Parabroteas Penther, 1913. Type species: *Parabroteas montezuma* Penther, 1913 = ? *Vaejovis mexicanus* C.L. Koch, 1836 (see Sissom, 2000b), by monotypy. [Junior homonym of *Parabroteas* Mrázek, 1902 (Crustacea: Calanoida).] Synonymized by Soleglad (1976).

Pentheria Francke, 1985. Type species: *Parabroteas montezuma* Penther, 1913. [Replacement name for *Parabroteas* Penther, 1913. Based on Penther's (1913) figures 5–7, this genus is evidently a synonym of *Vaejovis* C.L. Koch, 1836, as noted by Soleglad (1976) and Stockwell (1992).] Synonymized by Sissom (2000b).

Sissomius Ponce-Saavedra & Beutelspacher-Baigts, 2001 [*nomen nudum*]. [This name was published by Ponce-Saavedra & Beutelspacher-Baigts (2001) without designating a type species. However, it first appeared in the unpublished Ph.D. dissertation of Stockwell (1989), in which the type species was intended to be *Vaejovis nitidulus* C.L. Koch, 1842.]

Franckeus Soleglad & Fet, 2005a. Type species: *Vaejovis nitidulus* C.L. Koch, 1842, by original designation. [Soleglad & Fet (2005a: 7) created this genus to accommodate six species of the former *nitidulus* group of *Vaejovis* C.L. Koch, 1836, which share two putative synapomorphies: pedipalp patella retrolateral surface neobothriotaxic, with one accessory trichobothrium located near *esb* series, closest to esb_2; patellar trichobothrial series em_1–em_2 "angles towards" distal aspect of segment. The remaining 11 species previously assigned to the *nitidulus* group (Sissom & Francke, 1985; Sissom, 2000b), together with a new species, were retained in *Vaejovis*, in a newly defined group, named the "*nigrescens* group". Although the monophyly of *Franckeus* Soleglad & Fet, 2005a, is plausible, no analytical evidence was presented to demonstrate reciprocal monophyly with the *nigrescens* group, which possesses the plesiomorphic states of both characters. As the *nigrescens* group appears to be paraphyletic with respect to *Franckeus*, the same is true for *Vaejovis*. To restore the monophyly of *Vaejovis*, *Franckeus* Soleglad & Fet, 2005a = *Vaejovis* C.L. Koch, 1836, **syn. nov.**]

Endnotes

1. Legg *et al.* (2012) synonymized †*Allobuthiscorpius* Kjellesvig-Waering, 1986, †*Allobuthus* Kjellesvig-Waering, 1986, and †*Buthiscorpius* Petrunkevitch, 1953, with †*Compsoscorpius* Petrunkevitch, 1949. Although †*Allobuthiscorpius* and †*Buthiscorpius* are the type genera of †Allobuthiscorpiidae Kjellesvig-Waering, 1986, and †Buthiscorpiidae Kjellesvig-Waering, 1986, respectively, Dunlop *et al.* (2023) and Dunlop & Garwood (2024) listed †Allobuthiscorpiidae and †Buthiscorpiidae as valid families, respectively comprising genera †*Aspiscorpio* Kjellesvig-Waering, 1986, and †*Buthiscorpius*. However, as †Allobuthiscorpiidae is no longer valid on account of the synonymy of its type genus, †*Aspiscorpio* becomes *incertae sedis* in †Eoctonoidea Kjellesvig-Waering, 1986. Similarly, neither †Buthiscorpiidae nor †*Buthiscorpius* are valid on account of the respective synonymies of their type genus and type species. Additionally, as †*Allobuthus* and †*Buthiscorpius* are both junior synonyms of †*Compsoscorpius*, †*Buthiscorpius pescei* Vachon & Heyler, 1985, which is not the type species of †*Allobuthus* (Fet, 2000d; *cf.* Dunlop *et al*., 2023), and †*Buthiscorpius lemayi* Kjellesvig-Waering, 1986, respectively listed under †Anthracoscorpionidae Frič, 1904, and †Buthiscorpiidae Kjellesvig-Waering, 1986, by Dunlop *et al.* (2023), become †*Compsoscorpius pescei* (Vachon & Heyler, 1985), **comb. nov.**, and †*Compsoscorpius lemayi* (Kjellesvig-Waering, 1986), **comb. nov.**
2. As noted by (Fet, 2000d), Jeram (1994a) did not assign this genus to a known family but placed it *incertae sedis* in Neoscorpionina Thorell & Lindström, 1885, expanding the scope of this suborder from that of Kjellesvig-Waering (1986).
3. See note above regarding †*Buthiscorpius pescei* Vachon & Heyler, 1985, and †*Buthiscorpius lemayi* Kjellesvig-Waering, 1986, both of which are assigned herein to †*Compsoscorpius* Petrunkevitch, 1949.
4. Consistent with the phylogenetic analyses of Štundlová *et al.* (2022), the following synonyms are presented: Androctonides C.L. Koch, 1837a = Buthinae C.L. Koch, 1837a, **syn. nov.**; Orthochirinae Birula, 1917 = Buthinae C.L. Koch, 1837a, **syn. nov.**

5. Subfamily Charminae Birula, 1917, **stat. rev.**, is hereby revalidated and restricted to 15 extant genera and an extinct genus, consistent with the phylogenetic analyses of Lowe & Kovařík (2022), Štundlová *et al.* (2022), Santibáñez-López *et al.* (2023), and Joshi *et al.* (2025); also see Fet *et al.* (2005). Microcharmidae Lourenço, 1996c, was synonymized by Volschenk *et al.* (2008), revalidated by Lourenço *et al.* (2019), and returned to synonymy by Lowe & Kovařík (2022). The following synonyms are presented here: Microcharminae Lourenço, 1996c = Charminae Birula, 1917, **syn. nov.**; Uroplectinae Pavlovsky, 1924 = Charminae Birula, 1917, **syn. nov.**

6. Subfamily Isometrinae Kraepelin, 1891, **stat. rev.**, is hereby revalidated and restricted to 18 extant genera and 10 extinct genera, consistent with the phylogenetic analyses of Lowe & Kovařík (2022), Štundlová *et al.* (2022) and Joshi *et al.* (2025); also see Fet *et al.* (2005) and Santibáñez-López *et al.* (2023). Ythier (2024) elevated subfamily Ananterinae Pocock, 1900a, to the rank of family but, consistent with the phylogenetic analyses of Lowe & Kovařík (2022) and Štundlová *et al.* (2022), Ananteridae Pocock, 1900a, is regarded as a junior synonym of Isometrinae, *i.e.*, Ananterinae Pocock, 1900a = Isometrinae Kraepelin, 1891, **syn. nov.** Additionally, Babycurini Pocock, 1896c = Isometrinae Kraepelin, 1891, **syn. nov.**, and Akentrobuthinae Lamoral, 1976 = Isometrinae Kraepelin, 1891, **syn. nov.**

7. Based on habitus, pedipalp carination and trichobothrial patterns, metasomal carination and telson morphology, the Baltic amber genera (†*Palaeoakentrobuthus* Lourenço & Weitschat, 2000, †*Palaeoananteris* Lourenço & Weitschat, 2001, †*Palaeoisometrus* Lourenço & Weitschat, 2005, †*Palaeolychas* Lourenço & Weitschat, 1996, †*Palaeoprotobuthus* Lourenço & Weitschat, 2000, †*Palaeospinobuthus* Lourenço, Henderickx & Weitschat, 2005a, and †*Palaeotityobuthus* Lourenço & Weitschat, 2000), and Burmese amber genera (†*Archaeoananteroides* Lourenço, in Lourenço & Velten, 2016, †*Cretaceousbuthus* Lourenço, in Lourenço & Velten, 2022, and †*Palaeobutheolus* Lourenço, in Lourenço & Velten, 2025), appear to be appropriately assigned to Isometrinae Kraepelin, 1891.

8. *Isometrus isadensis* Tikader & Bastawade, 1983, is a valid species, not a *nomen dubium*.

9. The species count for *Reddyanus* Vachon, 1972, includes *Reddyanus wenjieae* (Huang, Liu & Di, 2025), **comb. nov.**

10. Subfamily Tityinae Kraepelin, 1905, **stat. rev.**, is hereby revalidated and restricted to 19 extant genera, consistent with the phylogenetic analyses of Lowe & Kovařík (2022), Štundlová *et al.* (2022), Santibáñez-López *et al.* (2023) and Joshi *et al.* (2025); also see Fet *et al.* (2005). The following synonyms are recognized: Centruroidinae Kraus, 1955 = Tityinae Kraepelin, 1905, **syn. nov.**; Rhopalurusinae Bücherl, 1971 = Tityinae Kraepelin, 1905, **syn. nov.**

11. Species assigned to *Androcottus* Karsch, 1879a, **stat. rev.**, include the *androcottoides* group (Mello-Leitão, 1945), the *discrepans* group (González-Sponga, 1985), and the *magnimanus* group (Lourenço, 1988a) of *Tityus* C.L. Koch, 1836, consistent with the phylogenetic analyses of Borges *et al.* (2010) and Štundlová *et al.* (2022). *Tityus exstinctus* Lourenço, 1995c, from the Lesser Antilles, is omitted from *Androcottus*, pending resolution of its phylogenetic position. *Tityus ythieri* Lourenço, 2007a, was erroneously synonymized with *Tityus magnimanus* Pocock, 1897d, by Kovařík *et al.* (2009) but revalidated by Ythier (2010); its status, as *Androcottus ythieri* (Lourenço, 2007a), **comb. nov.**, is therefore upheld.

12. Species assigned to *Atreus* Gervais, 1843, **stat. nov.**, are updated and revised from Lourenço (2006), based on Lourenço & Rossi (2019), and include the *forcipula* group (Mello-Leitão, 1945), the *nematochirus* group (Mello-Leitão, 1945), and the former *asthenes* group (Mello-Leitão, 1945), renamed the *obscurus* group (*e.g.*, Moreno-González *et al.*, 2021), of *Tityus* C.L. Koch, 1836, consistent with the phylogenetic analyses of Borges *et al.* (2010), Moreno-González *et al.* (2021, 2022), and Štundlová *et al.* (2022).

13. *Brazilotityus adisi* (Lourenço & Pezier, 2002), **comb. nov.**, and *Brazilotityus canopensis* (Lourenço & Pezier, 2002), **comb. nov.**, both based on immature holotypes (Moreno-González *et al.*, 2021), are probably conspecific (L. Carvalho Sousa, pers. comm.) but are both retained as valid pending further investigation. *Tityus lokiae* Lourenço, Adis & Araújo, 2005b, based on a first or second instar holotype, is retained in *Tityus* C.L. Koch, 1836 (contra Lourenço, 2006), pending clarification of its status and validity (L. Carvalho Sousa, pers. comm.).

14. Species assigned to *Caribetityus* Lourenço, 1999c, **stat. rev.**, are updated from Lourenço (2006) to include all extant and extinct species of *Tityus* C.L. Koch, 1836, reported from the Greater Antilles, *i.e.*, including species of the *crassimanus* group (*e.g.*, Teruel & Armas, 2006b; Teruel & Sánchez, 2009; Teruel & Santos, 2018).

15. Count recognizes the following synonymy by Cordova-Athanasiadis & Francke (2006): *Centruroides elegans edentulus* Werner, 1939a = *Centruroides limpidus* (Karsch, 1879b).

16. The species of *Heteroctenus* Pocock, 1893d, follow Esposito *et al.* (2017, 2018) with the addition of *Heteroctenus gibarae* (Teruel, 2006), and *Heteroctenus turieli* Teruel & Yong, 2023, the validity of which remains to be determined. The following synonyms are upheld in accordance with the arguments of Esposito *et al.* (2017, 2018): *Rhopalurus aridicola* Teruel & Armas, 2012 = *Heteroctenus junceus* (Herbst, 1800), **syn. nov.**; *Rhopalurus granulimanus* Teruel, 2006 = *Heteroctenus gibarae* (Teruel, 2006), **syn. nov.**; *Rhopalurus melloleitaoi* Teruel & Armas, 2006c = *Heteroctenus junceus* (Herbst, 1800), **syn. nov.**

17. The following synonym of Esposito *et al.* (2017) is upheld: *Rhopalurus pintoi kourouensis* Lourenço, 2008a = *Jaguajir pintoi* (Mello-Leitão, 1932), **syn. nov.**

18. Species assigned to *Mesotityus* González-Sponga, 1981b, are based in part on the lists of *Tityus* (*Archaeotityus*) Lourenço, 2006, in Lourenço (2006) and Moreno-González *et al.* (2019), and include all species previously assigned to the *clathatus* group, and former *paraguayensis* and *mattogrossensis* groups (Mello-Leitão, 1945), of *Tityus* C.L. Koch, 1836, consistent with the phylogenetic analyses of Borges *et al.* (2010) and Moreno-González *et al.* (2019, 2021, 2022). Additional input was provided by J.A. Moreno-González (pers. comm.).

19. As redefined herein, *Tityus* C.L. Koch, 1836, comprises extant species of the *bahiensis*, *bolivianus*, *stigmurus* and *trivittatus* groups (Mello-Leitão, 1945; Fet & Lowe, 2000; Lourenço, 2006; Moreno-González *et al.*, 2021) and two extinct species from Mexican (Chiapas) amber (Lourenço, 2014a; Riquelme *et al.*, 2015), the placement of which remains to be tested.

20. Based on examination of topotypes (AMNH), *Chaerilus lehtrarensis* Khatoon, 1999, is recognized as valid, *i.e.*, it is not a *nomen dubium*.

21. The classification of this family follows Prendini *et al.* (2021) and Xuan *et al.* (2025b). The revisions of Lourenço & Velten (2025a), unsupported by analysis or argumentation, are dismissed.

22. Belisariidae Lourenço, 1998a, and Uroctonidae Mello-Leitão, 1934a, **stat. nov.**, are retained in Chactoidea Pocock, 1893b, pending definitive resolution of their phylogenetic placement.

23. *Anuroctonus* Pocock, 1893b, is retained in a monotypic family, following Santibáñez-López *et al.* (2023), pending definitive resolution of its phylogenetic placement.

24. Following Prendini & Wheeler (2005), Brotheinae Simon, 1879, and Neochactini Soleglad & Fet, 2003, are synonymized with Chactinae Pocock, 1893b: Brotheinae Simon, 1879 = Chactinae Pocock, 1893b, **syn. nov.**; Neochactini Soleglad & Fet, 2003 = Chactinae Pocock, 1893b, **syn. nov.**

25. Based on an analysis with morphological characters ordered, Soleglad & Sissom (2001) transferred *Chactopsis* Kraepelin, 1912, a genus long placed in Chactidae Pocock, 1893b, to Euscorpiidae Laurie, 1896, placing it in a tribe, Chactopsini Soleglad & Sissom, 2001, of Megacorminae Kraepelin, 1899. However, Soleglad & Sissom's (2001: 78) analysis with unordered characters (*i.e.*, fewer *a priori* assumptions) placed *Chactopsis* sister to a monophyletic group comprising Euscorpiidae and Scorpiopidae Kraepelin, 1905, falsifying its inclusion in Megacorminae. Following Stockwell (1989), Prendini & Wheeler (2005), Ochoa *et al.* (2013) and Ythier (2019), Chactopsini is formally returned to Chactidae, with which it shares several synapomorphies (Stockwell, 1989; Ochoa *et al*., 2013), and elevated to the rank of subfamily, hence Chactopsinae Soleglad & Sissom, 2001, **stat. nov.**

26. The taxonomic position of *Scorpius allenii* Wood, 1863, has long been uncertain. Some early workers (e.g, Karsch, 1879b; Kraepelin, 1894) assigned it to Vaejovidae Thorell, 1876a, even considering it to be synonymous with *Uroctonus mordax* Thorell, 1876a, or at least congeneric with *Uroctonus* Thorell, 1876a. Others (e.g., Marx, 1890b; Banks, 1910) placed it in Chactidae Pocock, 1893b, in the genera *Brotheas* C.L. Koch, 1838 [as *Broteas* C.L. Koch, 1838], or *Broteochactas* Pocock, 1893d, where it remained (*e.g.*, Kraepelin, 1899; Ewing, 1928; Hoffmann, 1931; Gertsch, 1958; Gertsch & Soleglad, 1966; Díaz Najera, 1970) until Williams (1974) returned it to Vaejovidae, in the new genus *Nullibrotheas* Williams, 1974. Stockwell (1992) transferred *Nullibrotheas allenii* **(**Wood, 1863), back to Chactidae, based on an unpublished phylogenetic analysis (Stockwell, 1989), where it was retained by Sissom (2000a), Soleglad & Sissom (2001), and Soleglad & Fet (2003), who created Nullibrotheini Soleglad & Fet, 2003, as a tribe of Chactinae Pocock, 1893b. The phylogenomic analyses of Santibáñez-López *et al.* (2023) failed to place *Nullibrotheas* in a monophyletic group with *Brotheas*, the sole chactid exemplar. Therefore, pending a more comprehensive analysis of chactoid phylogeny, Nullibrotheini is hereby removed from Chactinae, and elevated to the rank of family as Nullibrotheidae Soleglad & Fet, 2003, **stat. nov.**

27. Vachon (1980b) described three new subgenera of *Scorpiops* Peters, 1861b: *Alloscorpiops* Vachon, 1980b, *Euscorpiops* Vachon, 1980b, and *Neoscorpiops* Vachon, 1980b. In an unpublished Ph.D. dissertation, Stockwell (1989) proposed raising the subgenera to the rank of genera and the subfamily Scorpiopinae Kraepelin, 1905 (as Scorpiopsinae), to the rank of family based on a morphological phylogenetic analysis. Stockwell's (1989) proposals were subsequently implemented by Lourenço (1998b) which, together with the monotypic genera, *Dasyscorpiops* Vachon, 1974, and *Parascorpiops* Banks, 1928, raised the number of genera in Scorpiopidae to six. Fet (2000c) followed Lourenço (1998b) whereas Kovařík (2000) synonymized *Euscorpiops* with *Scorpiops*. Subsequently, as part of a revision of family Euscorpiidae Laurie, 1896, Soleglad & Sissom (2001) presented another morphological phylogenetic analysis which confirmed the validity of the six genera of Scorpiopinae (regarded as a subfamily of Euscorpiidae by these authors); transferred the Neotropical genus, *Troglocormus* Francke, 1981a, to the subfamily; diagnosed all seven genera by means of unique character combinations; and transferred several species, previously assigned to *Scorpiops* by Kovařík (2000), to *Euscorpiops*. These genera were upheld by Soleglad & Fet (2003) and Fet & Soleglad (2005), who maintained Scorpiopinae as a subfamily of Euscorpiidae, as well as by Prendini & Wheeler (2005), who reinstated Scorpiopidae to the rank of family, where it has remained since. An eighth genus of Scorpiopidae, *Plethoscorpiops* Lourenço, 2017c, and two subgenera, *i.e.*, subgenus *Laoscorpiops* Lourenço, 2013, of *Alloscorpiops*, and subgenus *Vietscorpiops* Lourenço & Pham, 2015a, of *Scorpiops*, were subsequently created. Recently, Kovařík *et al.* (2020) synonymized all except one of the previously recognized Asian genera and subgenera of Scorpiopidae with *Scorpiops*, basing that decision in large part on a preliminary molecular phylogenetic analysis

by Šťáhlavský *et al.* (2021) which failed to recover the monophyly of several genera. Unfortunately, the analysis by Šťáhlavský *et al.* (2021) fell short of rigorously testing the taxa in question for several reasons: four of the genus-group taxa (*Laoscorpiops*, *Neoscorpiops*, *Parascorpiops*, and *Plethoscorpiops*) were omitted from the taxon sample; only two of the ten genus-group taxa were represented unequivocally by the type species (almost half the samples were unidentified to species); 25% of the DNA sequences in the molecular dataset were missing; none of the morphological data supporting the genera, e.g., the characters presented by Stockwell (1989), Soleglad & Sissom (2001) or Soleglad & Fet (2003) were tested simultaneously with the molecular data. Although presenting extensive morphometrics, some of which revealed major differences among the taxa in question, Kovařík *et al.* (2020) did not base their decisions on phylogenetic analysis, either; the fit of putative diagnostic characters to the phylogeny of Šťáhlavský *et al.* (2021) was discussed without subjecting those characters to a test of congruence. Lourenço & Ythier (2022) subsequently revalidated *Alloscorpiops*, *Dasyscorpiops*, *Euscorpiops*, *Neoscorpiops*, and *Plethoscorpiops*, retaining each as subgenera of *Scorpiops*. In view of the major deficiencies with the analysis of Šťáhlavský *et al.* (2021) and in the interests of stability, it is appropriate to again recognize, at the generic rank, the four taxa supported by previous studies: *Alloscorpiops* Vachon, 1980b, **stat. rev.**; *Dasyscorpiops* Vachon, 1974, **stat. rev.**; *Euscorpiops* Vachon, 1980b, **stat. rev.**; *Neoscorpiops* Vachon, 1980b, **stat. rev.** Further relimitation of these genera, including possible revalidation of other genera or subgenera currently in synonymy, awaits a more rigorous and comprehensive analysis of scorpiopid phylogeny. Species counts for genera recognized herein are updated from Lourenço & Ythier (2022), *e.g.*, the species which Lv & Di (2023) and Lv *et al.* (2023) "could not classify into any subgenus" were easily assigned to *Scorpiops* and *Euscorpiops*, respectively, based on existing diagnostic character combinations.

28. This subfamily is assigned to Scorpiopidae Kraepelin, 1905, following Soleglad & Sissom (2001), whose analyses convincingly demonstrated closer affinities to the latter than to Euscorpiidae Laurie, 1896, as recovered in the earlier, unpublished analysis of Stockwell (1989).

29. Soleglad & Fet (2003) relegated Troglotayosicidae Lourenço, 1998a, **stat. rev.**, to a subfamily of Superstitioniidae Stahnke, 1940, following Stockwell (1989). Prendini & Wheeler (2005) revalidated the family status, a move immediately contradicted by Fet & Soleglad (2005). Whereas most subsequent authors (*e.g.*, Botero-Trujillo & Francke, 2009; Francke, 2019; Sánchez-Vialas *et al*., 2020; Botero-Trujillo *et al*., 2021; Moreno-González *et al*., 2024) followed Prendini & Wheeler (2005), some (*e.g.*, Dupré, 2007), did not. Pending further resolution of the phylogenetic placement of *Troglotayosicus* Lourenço, 1981a, the family is hereby revalidated although it may eventually be recognized as a subfamily of Chactidae Pocock, 1893b.

30. As with the genera *Anuroctonus* Pocock, 1893b, and *Nullibrotheas* Williams, 1974, the taxonomic placement of *Uroctonus* Thorell, 1876a, has long been uncertain. The genus was assigned to Vaejovidae Thorell, 1876a, for most of its history, a placement confirmed by the phylogenetic analyses of Stockwell (1989, 1992) and maintained by Sissom (2000b) and Soleglad & Sissom (2001). Soleglad & Fet (2003) transferred it to Chactidae Pocock, 1893b, however, where it was placed, together with *Anuroctonus* Pocock, 1893b, in Uroctoninae Mello-Leitão, 1934a, based on a phylogenetic analysis that was severely criticized (Prendini & Wheeler, 2005). It was transferred back and forth between Vaejovidae and Chactidae by Prendini & Wheeler (2005) and Fet & Soleglad (2005), respectively. More recently, phylogenomic analyses of Santibáñez-López *et al.* (2019, 2023) failed to place it in either family, hence it was considered *incertae sedis* in Chactoidea Pocock, 1893b. In view of its unique morphology (Soleglad & Fet, 2003) and pending definitive resolution of its phylogenetic placement, Uroctoninae Mello-Leitão, 1934a, is hereby removed from Chactidae and elevated to the rank of family as Uroctonidae Mello-Leitão, 1934a, **stat. nov.**

31. For more than a century, a single species of *Iurus* Thorell, 1876a, was recognized, comprising two subspecies, the nominotypical form occurring in Greece and islands of the Aegean Sea, and *Iurus dufoureius asiaticus* Birula, 1903d, occurring in Turkey. A second species from Turkey, *Iurus kraepelini* Von Ubisch, 1921, was synonymized with *I. dufoureius asiaticus* by Vachon (1947). Vachon (1966) also synonymized *Chaerilomma dekanum* Roewer, 1943, described from the Greek island of Crete, with the nominotypical form of *I. dufoureius*. Francke (1981) considered *I. dufoureius asiaticus* to be a separate species, a decision followed by some authors (*e.g.*, Vachon & Kinzelbach, 1987; Crucitti, 1993; Kovařík, 1998b). However, after analyzing an extensive sample of specimens, Kritscher (1993) returned it to the rank of subspecies, where it was maintained by Sissom & Fet (2000b). As part of a series of works on Iuridae Thorell, 1876a, Kovařík *et al.* (2010), Soleglad *et al.* (2012) and Yağmur *et al.* (2015) returned *I. asiaticus* to the rank of species, revalidated *I. kraepelini* and *Iurus dekanum* (Roewer, 1943), and described five new species from Turkey and islands in the Aegean Sea. Whereas *I. dekanum* and one of the new species, *Iurus kinzelbachi* Kovařík, Fet, Soleglad & Yağmur, 2010, were retained, together with the type species, in *Iurus*, *I. asiaticus*, *I. kraepelini* and the other four species were transferred to a new genus, *Protoiurus* Soleglad, Fet, Kovařík & Yağmur, 2012. *Protoiurus* was separated from *Iurus* primarily on minor differences in the shape of the male hemispermatophore, particularly the angle of the hook (referred to as the "acuminate process"), the position of the lobe on the pedipalp chela movable finger of the adult male and overlapping counts of pectinal teeth and prolateral denticles on the movable finger, characters more appropriate for species-level than generic-level diagnosis (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b, 2001c; Jacob *et al.*, 2004; Monod & Volschenk, 2004; González-Santillán & Prendini, 2013; Blasco-Aróstegui *et al*., 2025b). A decade later, after conducting a multilocus phylogenetic analysis which demonstrated that *Protoiurus* was paraphyletic with respect to *Iurus*, Parmakelis *et al.* (2022: 12) erected three new

genera stating "To resolve this paraphyly, three new genera are established: *Anatoliurus* gen. n., *Metaiurus* gen. n., and *Letoiurus* gen. n." Rather than creating three monotypic genera and one genus of two species—for critiques of such practices, see *e.g.*, Platnick (1974) and Muñoz-Rodríguez *et al.* (2023)—the logical remedy to resolve the paraphyly would have been to synonymize *Protoiurus* with *Iurus*. The estimated genetic divergence among the major clades assigned to the five putative genera of Iurinae Thorell, 1876a, is comparable to the genetic divergence among the three species of *Calchas* Birula, 1899, which were not assigned to different genera (Parmakelis *et al.*, 2022: 9, Figure 4) suggesting species-level rather than genus-level differences. This is consistent with the minor morphological differences presented to separate the genera, which amount to overlapping measurements of total length, overlapping counts of pectinal teeth and prolateral denticles on the pedipalp chela movable finger, and differences in the curvature and extent of the proximal gap between the fixed and movable fingers of the pedipalp chela of the adult male, a sexually dimorphic character common in many scorpion genera that, while valid for species-level recognition, is inappropriate as a generic-level character (*e.g.*, Newlands & Prendini, 1997; Prendini, 2001b; Monod & Volschenk, 2004; Blasco-Aróstegui *et al.*, 2025b). For these reasons, four new generic synonyms are proposed, resulting in three new combinations (Appendix 1).

32. Despite prior evidence supporting the validity of this family (Stockwell, 1989; Prendini, 2000), Soleglad & Fet (2003) relegated it to a subfamily of Scorpionidae Latreille, 1802. Prendini & Wheeler (2005) revalidated the family status, a move immediately contradicted by Fet & Soleglad (2005). Some subsequent authors (*e.g.*, Santibáñez-López *et al.*, 2013, 2014b, 2017, 2023; Francke, 2019) followed Prendini & Wheeler (2005), whereas others (*e.g.*, Teruel, 2005; Dupré, 2007; Teruel *et al.*, 2015a), did not. The family is hereby revalidated: Diplocentridae Karsch, 1880a, **stat. rev.**

33. Subfamily Nebinae Kraepelin, 1905, **stat. rev.**, synonymized by Santibañez-López *et al.* (2017), is hereby revalidated, consistent with the analyses and diagnosis of Prendini (2000).

34. Although Hormuridae Laurie, 1896, was monophyletic in the phylogenetic analyses of Prendini (2000) and Monod & Prendini (2014), it was paraphyletic with respect to Diplocentridae Karsch, 1880a, and Scorpionidae Latreille, 1802, in recent phylogenomic analyses (*e.g.*, Santibáñez-López *et al.*, 2023). It is retained in its current form pending more comprehensive analyses of scorpionoid phylogeny.

35. Subfamily Hadogeninae Lourenço, 1999b, **stat. rev.**, synonymized by Prendini (2001b), is hereby revalidated, reflecting more recent evidence for its differentiation from other Hormuridae Laurie, 1896, *e.g.*, pedipalp carination and the double hook on the male hemispermatophore, shared with Hemiscorpiidae Pocock, 1893b.

36. Subfamily Opisthacanthinae Kraepelin, 1905, **stat. nov.**, is hereby revalidated and restricted to six genera recovered as a monophyletic group in several exemplar-based analyses (*e.g.*, Prendini, 2000; Santibáñez-López *et al*., 2023) but which requires further testing with a more comprehensive taxon sample.

37. Species of *Heterometrus* Ehrenberg, in Hemprich & Ehrenberg, 1828, follow Prendini & Loria (2020) except for *Heterometrus minotaurus* Plíšková, Kovařík, Košulič & Šťáhlavský, 2016, **stat. rev.** *Heterometrus laevigatus* (Thorell, 1876b), **stat. rev.**, is not a *nomen dubium* and *Heterometrus cimrmani* Kovařík, 2004a, is returned to synonymy with the latter: *Heterometrus cimrmani* Kovařík, 2004a = *Heterometrus laevigatus* (Thorell, 1876b), **syn. nov.**

38. Species of *Pandinurus* Fet, 1997a, follow Prendini & Loria (2020); *i.e*., *Pandinus intermedius* Borelli, 1919 = *Pandinurus citernii* (Borelli, 1919).

39. Species of *Pandipalpus* Rossi, 2015b, follow Prendini & Loria (2020), *i.e*., *Pandius lowei* Kovařík, 2012 = *Pandipalpus viatoris* (Pocock, 1890d).

40. *Scorpio propinquus* (Simon, 1872a), is a valid species (see Talal *et al*., 2015), *i.e.*, it is not a *nomen dubium*.

41. Despite prior evidence supporting the validity of this family (Stockwell, 1989; Prendini, 2000), Soleglad & Fet (2003) relegated it to a subfamily of Scorpionidae Latreille, 1802. Prendini & Wheeler (2005) revalidated the family status, a move immediately contradicted by Fet & Soleglad (2005). Most subsequent authors (*e.g*., Volschenk & Prendini, 2008; Volschenk *et al*., 2012; Francke, 2019; Buzatto *et al*., 2023; Santibáñez-López *et al*., 2023) followed Prendini & Wheeler (2005), but some (*e.g*., Dupré, 2007), did not. The family is hereby revalidated: Urodacidae Pocock, 1893b, **stat. rev.**

42. Santibáñez-López *et al.* (2019) assigned this monotypic family to a monotypic superfamily, as Superstitionoidea [sic] Stahnke, 1940, and later (Santibáñez-López *et al.*, 2023) to superfamily Caraboctonoidea Kraepelin, 1905. Pending definitive resolution of its phylogenetic placement, the earlier decision is adopted.

43. In the interests of consistency, tribe Stahnkeini Soleglad & Fet, 2006, removed from Syntropinae Kraepelin, 1905, by González-Santillán & Prendini (2013), is hereby elevated to the rank of subfamily, as Stahnkeinae Soleglad & Fet, 2006, **stat. nov.**

44. González-Santillán & Prendini (2013) restricted Syntropinae Kraepelin, 1905, to eleven extant genera and synonymized subtribe Thorelliina Soleglad & Fet, 2008.

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APPENDIX 1. New taxonomic changes in the Order Scorpiones C.L. Koch, 1850.

Order **Scorpiones** C.L. Koch, 1850 (1837a)
Suborder **Neoscorpionina** Thorell & Lindström, 1885
Infraorder **Orthosternina** Pocock, 1911

†*Compsoscorpius lemayi* (Kjellesvig-Waering, 1986), **comb. nov.**
†*Compsoscorpius pescei* (Vachon & Heyler, 1985), **comb. nov.**

Parvorder **Buthida** Soleglad & Fet, 2003
Superfamily **Buthoidea** C.L. Koch, 1837a
Family **Buthidae** C.L. Koch, 1837a
Subfamily **Buthinae** C.L. Koch, 1837a

Androctonides C.L. Koch, 1837a = Buthinae C.L. Koch, 1837a, **syn. nov.**
Orthochirinae Birula, 1917 = Buthinae C.L. Koch, 1837a, **syn. nov.**
Aegaeobuthus bishri (Lourenco, 2020), **comb. et stat. nov.**
Androctonus levyi Fet, 1997a, **stat. nov.**
Androctonus longecarinatus (Caporiacco, 1932a), **stat. nov.**
Androctonus persicus (Fet, Capes & Sissom, 2001), **comb. nov.**
Androctonus tenuissimus Teruel, Kovařík & Turiel, 2013 = *Androctonus longecarinatus* (Caporiacco, 1932a), **syn. nov.**
Baloorthochirus Kovařík, 1996 = *Orthochirus* Karsch, 1891, **syn. nov.**
Buthotus asimii Amir, Kamaluddin & Khan, 2004a = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Cicileiurus Teruel, 2007 = *Leiurus* Ehrenberg, in Hemprich & Ehrenberg, 1828, **syn. nov.**
Compsobuthus bernardettae (Vachon, 1977), **comb. nov.** [*nomen dubium*]
Compsobuthus elegans (Lourenço & Duhem, 2009), **comb. nov.**
Compsobuthus humaae Amir, Kamaluddin & Khan, 2005b = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Compsobuthus inexpectatus (Lourenço, 2015c), **comb. nov.**
Compsobuthus rajasthanicus (Tikader & Bastawade, 1983), **comb. nov.**
Darchenia Vachon, 1977 = *Compsobuthus* Vachon, 1949a, **syn. nov.**
Dasyscorpio Pallary, 1938 = *Hottentotta* Birula, 1908, **syn. nov.**
Femtobuthus Lowe, 2010 = *Microbuthus* Kraepelin, 1898a, **syn. nov.**
Fetilinia Lowe & Kovařík, 2021 = *Orthochirus* Karsch, 1891, **syn. nov.**
Fetilinia dentator Lowe & Kovařík, 2021 = *Orthochirus flavescens* (Pocock, 1897a), **syn. nov.**
Gint Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b = *Somalibuthus* Kovařík, 1998a, **syn. nov.**
Hemibuthus birulai (Tahir, Navidpour & Prendini, 2014), **comb. nov.**
Hemibuthus farzanpayi (Tahir, Navidpour & Prendini, 2014), **comb. nov.**
Hemibuthus umarii Amir, Kamaluddin & Khan, 2004b = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Hemibuthus xinjianganus (Lourenço, Sun & Zhu, 2010c), **comb. nov.**

Hottentotta minax occidentalis (Vachon & Stockmann, 1968) = *Hottentotta minax* (L. Koch, 1875), **syn. nov.**
Hottentotta nigrifrons (Pocock, 1900a), **stat. nov.**
Isometrus liaqatii Amir & Kamaluddin, 2008 = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Isometrus (*Reddyanus*) *atherii* Amir & Kamaluddin, 2008 = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Leiurus monticola (Teruel, 2007), **comb. nov.**
Microbuthus shutuae (Lowe, 2010), **comb. nov.**
Nanobuthus Pocock, 1895, **stat. rev.**
Nanobuthus amoudensis Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus awashensis (Kovařík & Lowe, 2012), **comb. nov.**
Nanobuthus berberensis (Hirst, 1911), **comb. nov.**
Nanobuthus cloudsleythompsoni (Lourenço, 2001f), **comb. nov.**
Nanobuthus dhobo (Kovařík, Elmi & Šťáhlavský, 2024c), **comb. nov.**
Nanobuthus erigavoensis (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus eritreaensis (Lowe & Kovařík, 2016), **comb. nov.**
Nanobuthus factorio (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus ferrugineus (Kraepelin, 1898a), **comb. nov.**
Nanobuthus fryntai (Kovařík, Elmi & Frýdlová, 2023), **comb. nov.**
Nanobuthus gubanensis (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus haeckeli (Kovařík, 2019b), **comb. nov.**
Nanobuthus kloppersi (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus kutcheri (Lowe & Kovařík, 2016), **comb. nov.**
Nanobuthus maidensis (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus montanus (Kovařík, Lowe, Awale, Elmi & Hurre, 2018c), **comb. nov.**
Nanobuthus opatovae (Kovařík, Elmi & Šťáhlavský, 2024c), **comb. nov.**
Nanobuthus osoli (Kovařík, Elmi & Šťáhlavský, 2024c), **comb. nov.**
Nanobuthus solegladi (Kovařík, 2019b), **comb. nov.**
Nanobuthus sudanensis (Lourenço, 2005b), **comb. nov.**
Nanobuthus verae (Kovařík, Elmi & Šťáhlavský, 2024c), **comb. nov.**
Neobuthus Hirst, 1911 = *Nanobuthus* Pocock, 1895, **syn. nov.**
Neohemibuthus Lourenço, 1996a = *Hemibuthus* Pocock, 1900a, **syn. nov.**
Orthochirus becvari (Kovařík, 1996), **comb. nov.**
Pakistanorthochirus Lourenço, 1997a = *Orthochirus* Karsch, 1891, **syn. nov.**
Pakistanorthochirus weitschati Lourenço, 1997a = *Orthochirus pallidus* Pocock, 1897a, **syn. nov.**
Pantobuthus Lourenço & Duhem, 2009 = *Kraepelinia* Vachon, 1974, **syn. nov.**
Pantobuthus complicatus Lourenço & Duhem, 2009 = *Kraepelinia palpator* (Birula, 1903a), **syn. nov.**
Polisius Fet, Capes & Sissom, 2001 = *Androctonus* Ehrenberg, in Hemprich & Ehrenberg, 1828, **syn. nov.**
Razianus Farzanpay, 1987 = *Hemibuthus* Pocock, 1900a, **syn. nov.**
Sabinebuthus Lourenço, 2001b = *Lanzatus* Kovařík, 2001b, **syn. nov.**
Sabinebuthus elegans Lourenço, 2001b = *Lanzatus somalicus* Kovařík, 2001b, **syn. nov.**
Saharobuthus Lourenço & Duhem, 2009 = *Compsobuthus* Vachon, 1949a, **syn. nov.**
Sahil Kovařík, 2024 = *Somalibuthus* Kovařík, 1998a, **syn. nov.**
Sanaag Kovařík, 2024 = *Somalibuthus* Kovařík, 1998a, **syn. nov.**

Somalibuthus abshiri (Kovařík, Elmi & Šťáhlavský, 2024a), **comb. nov.**
Somalibuthus amoudensis (Kovařík, Lowe, Just, Awale, Elmi & Šťáhlavský, 2018a), **comb. nov.**
Somalibuthus banfasae (Kovařík & Lowe, 2019), **comb. nov.**
Somalibuthus calviceps (Pocock, 1900d), **comb. nov.**
Somalibuthus childsi (Kovařík, 2018a), **comb. nov.**
Somalibuthus dabakalo (Kovařík & Mazuch, 2015), **comb. nov.**
Somalibuthus derbiae (Kovařík, Elmi & Šťáhlavský, 2024a), **comb. nov.**
Somalibuthus elmi (Kovařík, 2024), **comb. nov.**
Somalibuthus gaitako (Kovařík, Lowe, Plíšková & Šťáhlavský, 2013b), **comb. nov.**
Somalibuthus gubanensis (Kovařík, Lowe, Just, Awale, Elmi & Šťáhlavský, 2018a), **comb. nov.**
Somalibuthus insolitus (Borelli, 1925), **comb. nov.** [*nomen dubium*]
Somalibuthus maidensis (Kovařík, Lowe, Just, Awale, Elmi & Šťáhlavský, 2018a), **comb. nov.**
Somalibuthus marialuisae (Rossi, 2015c), **comb. nov.** [*nomen dubium*]
Somalibuthus monicae (Rossi, 2015c), **comb. nov.** [*nomen dubium*]
Somalibuthus puntlandus (Kovařík & Mazuch, 2015), **comb. nov.**
Somalibuthus sahil (Kovařík, Elmi & Šťáhlavský, 2024a), **comb. nov.**
Stenochirus jinnahii Amir, Kamaluddin & Jabbar, 2005a = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Stenochirus rahmatii Amir, Kamaluddin & Jabbar, 2005a = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**
Vachonus Tikader & Bastawade, 1983 = *Compsobuthus* Vachon, 1949a, **syn. nov.**
Vachonus asiyaae Amir & Kamaluddin, 2009 = *Compsobuthus rugosulus* (Pocock, 1900a), **syn. nov.**
Vachonus iqbali Amir & Kamaluddin, 2009 = *Odontobuthus odonturus* (Pocock, 1897a), **syn. nov.**

Subfamily **Charminae** Birula, 1917, **stat. rev.**

Microcharminae Lourenço, 1996c = Charminae Birula, 1917, **syn. nov.**
Uroplectinae Pavlovsky, 1924 = Charminae Birula, 1917, **syn. nov.**
Butheoloides (*Gigantoloides*) Lourenço, 2002c = *Butheoloides* Hirst, 1925, **syn. nov.**
Butheoloides aymerichi (Lourenço, 2002c), **comb. nov.**
Butheoloides geniezi (Qi & Lourenço, 2007), **comb. nov.**
Butheoloides silvestrii (Borelli, 1913), **comb. nov.**
Egyptobuthus Lourenço, 1999a = *Uroplectes* Peters, 1861b, **syn. nov.**
Egyptobuthus vaissadei Lourenço, 1999a = *Uroplectes spenceri* Pocock, 1896b, **syn. nov.**

Mauritanobuthus Qi & Lourenço, 2007 = *Butheoloides* Hirst, 1925, **syn. nov.**
Microcharmus ambre Lourenço, Goodman & Fisher, 2006, **stat. nov.**
Microcharmus betschi (Lourenço, 1995b), **comb. nov.**
Microcharmus intermedius (Lourenço, 2000b), **comb. nov.**
Microcharmus jacki (Lourenço, 2021a), **comb. nov.**
Microcharmus lalyae (Lourenço & Ythier, 2010), **comb. nov.**
Microcharmus maculatus (Lourenço, Goodman & Fisher, 2006), **comb. nov.**
Microcharmus namoroka Lourenço, Goodman & Fisher, 2006, **stat. nov.**
Microcharmus pidgeoni (Lourenço & Goodman, 1999), **comb. nov.**
Microcharmus tsingy (Lourenço, Wilmé & Waeber, 2016), **comb. nov.**
Neoprotobuthus Lourenço, 2000b = *Microcharmus* Lourenço, 1995b, **syn. nov.**
Parabuthus hamar Kovařík, Lowe, Plíšková & Šťáhlavský, 2016c = *Parabuthus maximus* Werner, 1913, **syn. nov.**
Pseudouroplectes Lourenço, 1995b = *Microcharmus* Lourenço, 1995b, **syn. nov.**
Riftobuthus inexpectatus Lourenço, Duhem & Cloudsley-Thompson, 2010a = *Parabuthus maximus* Werner, 1913, **syn. nov.**
Tityobuthus gracilis (Fage, 1946), **comb. nov.**
Troglotityobuthus Lourenço, 2000c = *Tityobuthus* Pocock, 1893b, **syn. nov.**
Uroplectes australis Hewitt, 1918, **stat. nov.**
Uroplectes basuticus Hewitt, 1927, **stat. nov.**
Uroplectes maculipes Hewitt, 1918, **stat. nov.**
Uroplectes nigrimanus maore Lourenço, Wilmé & Ythier, 2025a = *Uroplectes nigrimanus* (Pocock, 1890a), **syn. nov.**
Uroplectes nigrimanus nigrocarinatus Kraepelin, 1913 = *Uroplectes nigrimanus* (Pocock, 1890a), **syn. nov.**
Uroplectes occidentalis var. *monardi* Vachon, 1950b = *Uroplectes occidentalis* Simon, 1876, **syn. nov.**
Uroplectes otjimbinguensis massacarum Monard, 1937 = *Uroplectes otjimbinguensis* (Karsch, 1879b), **syn. nov.**
Uroplectes planimanus kuanyamarus Monard, 1937 = *Uroplectes planimanus* (Karsch, 1879b), **syn. nov.**
Uroplectes spenceri Pocock, 1896b, **stat. nov.**

Subfamily **Isometrinae** Kraepelin, 1891, **stat. rev.**

Akentrobuthinae Lamoral, 1976 = Isometrinae Kraepelin, 1891, **syn. nov.**
Ananterinae Pocock, 1900a = Isometrinae Kraepelin, 1891, **syn. nov.**
Babycurini Pocock, 1896c = Isometrinae Kraepelin, 1891, **syn. nov.**
Ananteris abounami (Lourenço & Chevalier, 2022), **comb. nov.**
Ananteris inselberg (Lourenço, 2021b), **comb. nov.**
Ananteris minor (Lourenço, 2003b), **comb. nov.**
Ananteris serrulata (Lourenço, 2021b), **comb. nov.**
Babycurus buettneri savanicola Lourenço, Bruehmueller Ramos & Cloudsley-Thompson, 2005c = *Babycurus kirki* (Pocock, 1890a), **syn. nov.**

Endotrichus Tikader & Bastawade, 1983, **stat. nov. et stat. rev.**
Endotrichus albimanus (Henderson, 1919), **comb. nov.**
Endotrichus biharensis (Tikader & Bastawade, 1983), **comb. nov.**
Endotrichus farkasi (Kovařík, 1997c), **comb. nov.**
Endotrichus granulatus (Mirza, 2020), **comb. nov.**
Endotrichus hendersoni (Pocock, 1897a), **comb. nov.**
Endotrichus heurtaultae (Kovařík, 1997c), **comb. nov.**
Endotrichus kamshetensis (Tikader & Bastawade, 1983), **comb. nov.**
Endotrichus keralaensis (Mirza, 2020), **comb. nov.**
Endotrichus laevifrons (Pocock, 1897a), **comb. nov.**

Endotrichus shoplandi (Oates, 1888), **comb. nov.**
Endotrichus srilankensis (Lourenço, 1997e), **comb. nov.**
Endotrichus tricarinatus (Simon, 1884), **comb. nov.**
Janalychas Kovařík, 2019a = *Endotrichus* Tikader & Bastawade, 1983, **syn. nov.**
Lychas variatus canopensis Lourenço & Qi, 2007b = *Lychas papuanus* (Thorell, 1888), **syn. nov.**
Microananteris Lourenço, 2003b = *Ananteris* Thorell, 1891, **syn. nov.**
Reddyanus Vachon, 1972, **stat. rev.**
Reddyanus wenjieae (Huang, Liu & Di, 2025), **comb. nov.**
Spelaeolychas Kovařík, 2019a = *Lychas* C.L. Koch, 1845, **syn. nov.**

Subfamily **Tityinae** Kraepelin, 1905, **stat. rev.**

Centruroidinae Kraus, 1955 = Tityinae Kraepelin, 1905, **syn. nov.**
Rhopalurusinae Bücherl, 1971 = Tityinae Kraepelin, 1905, **syn. nov.**
Androcottus Karsch, 1879a, **stat. rev.**
Androcottus ahincoi (González-Sponga, 2001), **comb. nov.**
Androcottus androcottoides (Karsch, 1879b), **comb. nov.**
Androcottus anduzei (González-Sponga, 1997a), **comb. nov.**
Androcottus arellanoparrai (González-Sponga, 1985), **comb. nov.**
Androcottus boconoensis (González-Sponga, 1981a), **comb. nov.**
Androcottus breweri (González-Sponga, 1997a), **comb. nov.**
Androcottus carabobensis (González-Sponga, 1987), **comb. nov.**
Androcottus caripitensis (Quiroga, De Sousa & Parrilla-Álvarez, 2000), **comb. nov.**
Androcottus culebrensis (González-Sponga, 1994a), **comb. nov.**
Androcottus dorae (González-Sponga, 2001), **comb. nov.**
Androcottus duacaensis (González-Sponga, 2007a), **comb. nov.**
Androcottus dulceae (González-Sponga, 2006), **comb. nov.**
Androcottus elizabethae (Lourenço & Bruehmueller Ramos, 2004), **comb. nov.**
Androcottus elizabethebravoi (González-Sponga & Wall González, 2007), **comb. nov.**
Androcottus funestus (Hirst, 1911), **comb. nov.**
Androcottus gonzalespongai (Quiroga, De Sousa, Parrilla-Álvarez & Manzanilla 2004), **comb. nov.**
Androcottus guaricoensis (González-Sponga, 2004a), **comb. nov.**
Androcottus imei (Borges, De Sousa & Manzanilla, 2006), **comb. nov.**
Androcottus isabelceciliae (González-Sponga, D'Suze & Sevcik, 2001), **comb. nov.**
Androcottus ivicnancor (González-Sponga, 1997b), **comb. nov.**
Androcottus kalettai (González-Sponga, 2007b), **comb. nov.**
Androcottus longidigitus (González-Sponga, 2008c), **comb. nov.**
Androcottus magnimanus (Pocock, 1897d), **comb. nov.**
Androcottus maimirensis (González-Sponga, 2007a), **comb. nov.**
Androcottus maturinensis (González-Sponga, 2008a), **comb. nov.**
Androcottus mazzeii (González-Sponga, 2008b), **comb. nov.**
Androcottus monaguensis (González-Sponga, 1974), **comb. nov.**
Androcottus mucusunamensis (González-Sponga, 2006), **comb. nov.**
Androcottus neblina (Lourenço, 2008b), **comb. nov.**
Androcottus neoespartanus (González-Sponga, 1996a), **comb. nov.**
Androcottus nororientalis (González-Sponga, 1996a), **comb. nov.**
Androcottus obispoi (González-Sponga, 2006), **comb. nov.**
Androcottus osmanus (González-Sponga, 1996a), **comb. nov.**
Androcottus pampanensis (González-Sponga, 2007a), **comb. nov.**
Androcottus pittieri (González-Sponga, 1981a), **comb. nov.**
Androcottus pococki (Hirst, 1907), **comb. nov.**
Androcottus quiriquirensis (González-Sponga, 2008c), **comb. nov.**
Androcottus quirogae (De Sousa, Manzanilla & Parrilla-Álvarez, 2006), **comb. nov.**
Androcottus rebieri (Lourenço, 1997c), **comb. nov.**
Androcottus riocaurensis (González-Sponga, 1996a), **comb. nov.**
Androcottus rojasi (González-Sponga, 1996a), **comb. nov.**
Androcottus romeroi (González-Sponga, 2008c), **comb. nov.**
Androcottus rugosus (Schenkel, 1932), **comb. nov.**
Androcottus rusmelyae (González-Sponga, D'Suze & Sevcik, 2001), **comb. nov.**
Androcottus sanarensis (González-Sponga, 1997b), **comb. nov.**
Androcottus sanfernandoi (González-Sponga, 2008c), **comb. nov.**
Androcottus surorientalis (González-Sponga, 1996a), **comb. nov.**
Androcottus tenuicauda (Prendini, 2001e), **comb. nov.**
Androcottus trinitatis (Pocock, 1897d), **comb. nov.**
Androcottus uquirensis (González-Sponga, 2001), **comb. nov.**
Androcottus valerae (Scorza, 1954), **comb. nov.**
Androcottus venamensis (González-Sponga, 1981a), **comb. nov.**
Androcottus ventuarensis (González-Sponga, 2009), **comb. nov.**
Androcottus walli (González-Sponga & Wall González, 2007), **comb. nov.**
Androcottus yerenai (González-Sponga, 2009), **comb. nov.**
Androcottus ythieri (Lourenço, 2007a), **comb. nov.**
Androcottus zeaensis (González-Sponga, 2008b), **comb. nov.**
Androcottus zulianus (González-Sponga, 1981a), **comb. nov.**
Atreus Gervais, 1843, **stat. nov.**
Atreus acananensis (González-Sponga, 2009), **comb. nov.**
Atreus achilles (Laborieux, 2024a), **comb. nov.**
Atreus anori (Lourenço, Rossi & Wilmé, 2019), **comb. nov.**
Atreus antioquensis (Lourenço & Otero Patiño, 1998), **comb. nov.**
Atreus apiacas (Lourenço, 2002b), **comb. nov.**
Atreus barquisimetanus (González-Sponga, 1994c), **comb. nov.**
Atreus blanci (Lourenço, 1994), **comb. nov.**
Atreus cachipalensis (González-Sponga, 2002), **comb. nov.**
Atreus caesarbarrioi (González-Sponga, 2001), **comb. nov.**
Atreus carolineae (Kovařík, Teruel, Cozijn & Seiter, 2013c), **comb. nov.**
Atreus cerroazul (Lourenço, 1986a), **comb. nov.**
Atreus championi (Pocock, 1898a), **comb. nov.**
Atreus choco (Lourenço & Flórez, 2018), **comb. nov.**
Atreus cisandinus (Lourenço & Ythier, 2017), **comb. nov.**
Atreus crassicauda (Lourenço & Ythier, 2013), **comb. nov.**
Atreus cuellari (Lourenço, 1994), **comb. nov.**
Atreus cuyabeno (Lourenço & Leguin, 2025), **comb. nov.**
Atreus dasyurus (Pocock, 1897d), **comb. nov.**
Atreus dedoslargos (Francke & Stockwell, 1987), **comb. nov.**
Atreus dinizi (Lourenço, 1997d), **comb. nov.**
Atreus dupouyi (González-Sponga, 1987), **comb. nov.**
Atreus engelkei (Pocock, 1902b), **comb. nov.**
Atreus evandroi (Mello-Leitão, 1945), **comb. nov.**
Atreus festae (Borelli, 1899b), **comb. nov.**
Atreus filodendron (González-Sponga, 1981a), **comb. nov.**
Atreus florezi (Lourenço, 2000d), **comb. nov.**
Atreus forcipula (Gervais, 1843), **comb. nov.**

Atreus fuhrmanni (Kraepelin, 1914), **comb. nov.**
Atreus fulvipes (Mello-Leitão, 1945) **comb. et stat. nov.**
Atreus generaltheophiloi (Lourenço, 2017b), **comb. nov.**
Atreus icarus (Laborieux, 2024b), **comb. nov.**
Atreus insignis (Pocock, 1889c), **comb. nov.**
Atreus ivani (González-Sponga, 2008a), **comb. nov.**
Atreus jaimei (Miranda, Bermúdez, Flórez & Armas, 2020), **comb. nov.**
Atreus jajiensis (González-Sponga, 2008b), **comb. nov.**
Atreus lourencoi (Flórez, 1996), **comb. nov.**
Atreus macrochirus (Pocock, 1897d), **comb. nov.**
Atreus maniapurensis (González-Sponga, 2009), **comb. nov.**
Atreus matthieseni (Pinto-da-Rocha & Lourenço, 2000), **comb. nov.**
Atreus metuendus (Pocock, 1897c), **comb. nov.**
Atreus moralensis (Moreno-González, Pinto-da-Rocha & Cabra-García, 2022), **comb. nov.**
Atreus nematochirus (Mello-Leitão, 1940), **comb. nov.**
Atreus obscurus (Gervais, 1843), **comb. nov.**
Atreus oteroi (Lourenço, 1998e), **comb. nov.**
Atreus pachyurus (Pocock, 1897d), **comb. nov.**
Atreus perijanensis (González-Sponga, 1994b), **comb. nov.**
Atreus prancei (Lourenço, 2000d), **comb. nov.**
Atreus rosenbergi (Pocock, 1898c), **comb. nov.**
Atreus rufofuscus (Pocock, 1897d), **comb. nov.**
Atreus sabineae (Lourenço, 1994), **comb. nov.**
Atreus sarisarinamensis (González-Sponga, 2002), **comb. nov.**
Atreus sastrei (Lourenço & Flórez, 1990), **comb. nov.**
Atreus shiriana (González-Sponga, 1991), **comb. nov.**
Atreus surmeridensis (González-Sponga, 2002), **comb. nov.**
Atreus tamayoi (González-Sponga, 1987), **comb. nov.**
Atreus timendus (Pocock, 1898c), **comb. nov.**
Atreus tucurui (Lourenço, 1988b), **comb. nov.**
Atreus unus (Pinto-da-Rocha & Lourenço, 2000), **comb. nov.**
Atreus urachichensis (González-Sponga, 2007a), **comb. nov.**
Atreus urbinai (Scorza, 1952), **comb. nov.**
Atreus vaissadei (Lourenço, 2002b), **comb. nov.**
Brazilotityus Lourenço, 2006, **stat. nov.**
Brazilotityus adisi (Lourenço & Pezier, 2002), **comb. nov.**
Brazilotityus canopensis (Lourenço & Pezier, 2002), **comb. nov.**
Brazilotityus charalaensis (Mello-Leitão, 1940), **comb. nov.** [*nomen nudum*]
Brazilotityus dillerorum (Kovařík, Teruel, Lowe & Friedrich, 2015b), **comb. nov.**
Brazilotityus gaffini (Lourenço, 2000d), **comb. nov.**
Brazilotityus gasci (Lourenço, 1982b), **comb. nov.**
Brazilotityus lancinii (González-Sponga, 1972), **comb. nov.**
Brazilotityus melanostictus (Pocock, 1893d), **comb. nov.**
Brazilotityus nelsoni (Lourenço, 2005c), **comb. nov.**
Brazilotityus rionegrensis (Lourenço, 2006), **comb. nov.**
Brazilotityus raquelae (Lourenço, 1988c), **comb. nov.**
Brazilotityus strandi (Werner, 1939a), **comb. nov.**
Caribetityus Lourenço, 1999c, **stat. rev.**
Caribetityus abudi (Armas, 1999), **comb. nov.**
Caribetityus alejandroi (Teruel, Rivera & Santos, 2015b), **comb. nov.**
Caribetityus altithronus (Armas, 1999), **comb. nov.**
Caribetityus angelesae (Santiago-Blay, 2009), **comb. nov.**
Caribetityus bellulus (Armas, 1999), **comb. nov.**
Caribetityus crassimanus (Thorell, 1876b), **comb. nov.**
Caribetityus estherae (Santiago-Blay, 2009), **comb. nov.**
†*Caribetityus geratus* (Santiago-Blay & Poinar, 1988), **comb. nov.**
Caribetityus haetianus (Teruel & Santos, 2018), **comb. nov.**
Caribetityus juliorum (Santiago-Blay, 2009), **comb. nov.**
Caribetityus kindli (Kovařík & Teruel, 2014), **comb. nov.**
Caribetityus michelii (Armas, 1982), **comb. nov.**
Caribetityus neibae (Armas, 1999), **comb. nov.**
Caribetityus obtusus (Karsch, 1879b), **comb. nov.**
Caribetityus ottenwalderi (Armas, 1999), **comb. nov.**
Caribetityus portoplatensis (Armas & Marcano Fondeur, 1992), **comb. nov.**
Caribetityus riverai (Teruel & Sánchez, 2009), **comb. nov.**
Caribetityus schrammi (Teruel & Santos, 2018), **comb. nov.**
Centruroides insularis Pocock, 1902a, **stat. nov.**
Centruroides meridionalis Hoffmann, 1932, **stat. nov.**
Mesotityus atriventer (Pocock, 1897d), **comb. nov.**
Mesotityus bastosi (Lourenço, 1984), **comb. nov.**
Mesotityus birabeni (Abalos, 1955), **comb. nov.**
Mesotityus clathratus (C.L. Koch, 1844), **comb. nov.**
Mesotityus columbianus (Thorell, 1876a), **comb. nov.**
Mesotityus grahami (Lourenço, 2012c), **comb. nov.**
Mesotityus guane (Moreno-González, González O. & Flórez D., 2019), **comb. nov.**
Mesotityus indecisus (Mello-Leitão, 1934b), **comb. nov.**
Mesotityus intermedius (Borelli, 1899c), **comb. nov.**
Mesotityus julianae (Lourenço, 2005d), **comb. nov.**
Mesotityus kaderkai (Kovařík, 2005), **comb. nov.**
Mesotityus kukututee (Ythier, Chevalier & Gangadin, 2020), **comb. nov.**
Mesotityus lutzi (Giltay, 1928), **comb. nov.**
Mesotityus mana (Lourenço, 2012c), **comb. nov.**
Mesotityus manakai (González-Sponga, 2004b), **comb. nov.**
Mesotityus maranhensis (Lourenço, Jesus Junior & Limeira-de-Oliveira, 2006), **comb. nov.**
Mesotityus mattogrossensis (Borelli, 1901b), **comb. nov.**
Mesotityus microcystis (Lutz & Mello, 1922), **comb. nov.** [*nomen nudum*]
Mesotityus ocelote (Francke & Stockwell, 1987), **comb. nov.**
Mesotityus paraguayensis (Kraepelin, 1895), **comb. nov.**
Mesotityus parvulus (Kraepelin, 1914), **comb. nov.**
Mesotityus pusillus (Pocock, 1893b), **comb. nov.**
Mesotityus rondonorum (Rojas-Runjaic & Armas, 2007), **comb. nov.**
Mesotityus silvestris (Pocock, 1897c), **comb. nov.**
Mesotityus tayrona (Lourenço, 1991b), **comb. nov.**
Mesotityus wachteli (Kovařík, Teruel, Lowe & Friedrich, 2015b), **comb. nov.**
Parvabsonus Armas, 1974a, **stat. nov.**
†*Parvabsonus ambarensis* (Schawaller, 1981), **comb. nov.**
Parvabsonus barahona (Armas & Teruel, 2012), **comb. nov.**
Parvabsonus borincanus (Teruel, Rivera & Sánchez, 2014), **comb. nov.**
Parvabsonus consuelo (Armas & Marcano Fondeur, 1987), **comb. nov.**
Parvabsonus difficilis (Teruel & Armas, 2006a), **comb. nov.**
Parvabsonus dominicanensis (Santiago-Blay, 1985), **comb. nov.**
Parvabsonus eustatia (Armas, 2018), **comb. nov.**
Parvabsonus farleyi (Teruel, 2000), **comb. nov.**
Parvabsonus flavescens (Teruel, 2001), **comb. nov.**

Parvabsonus fundorai (Armas, 1974a), **comb. nov.**
Parvabsonus guantanamo (Armas, 1984), **comb. nov.**
Parvabsonus iviei (Armas, 1999), **comb. nov.**
Parvabsonus jaumei (Armas, 1974a), **comb. nov.**
Parvabsonus kovariki (Teruel & Infante, 2007), **comb. nov.**
Parvabsonus lantiguai (Armas & Marcano Fondeur, 1992), **comb. nov.**
Parvabsonus lourencoi (Armas & Teruel, 2012), **comb. nov.**
Parvabsonus minimus (Kovařík & Teruel, 2014), **comb. nov.**
Parvabsonus paucidentatus (Armas & Marcano Fondeur, 1992), **comb. nov.**
Parvabsonus prendinii (Armas & Teruel, 2012), **comb. nov.**
Parvabsonus pusillus (Teruel & Kovařík, 2012), **comb. nov.**
Parvabsonus reini (Armas & Teruel, 2012), **comb. nov.**
Parvabsonus santosi (Teruel, Rivera & Sánchez, 2014), **comb. nov.**
Parvabsonus solegladi (Armas & Teruel, 2012), **comb. nov.**
Parvabsonus trinitensis (Armas, 1974a), **comb. nov.**
Parvabsonus vieques (Teruel, Rivera & Santos, 2015b), **comb. nov.**
Parvabsonus virginiae (Armas, 1999), **comb. nov.**
Parvabsonus vulcanicus (Teruel, 2019), **comb. nov.**
Parvabsonus waeringi (Francke & Sissom, 1980), **comb. nov.**
Rhopalurus aridicola Teruel & Armas, 2012 = *Heteroctenus junceus* (Herbst, 1800), **syn. nov.**
Rhopalurus granulimanus Teruel, 2006 = *Heteroctenus gibarae* (Teruel, 2006), **syn. nov.**
Rhopalurus melloleitaoi Teruel & Armas, 2006c = *Heteroctenus junceus* (Herbst, 1800), **syn. nov.**.
Rhopalurus pintoi kourouensis Lourenço, 2008a = *Jaguajir pintoi* (Mello-Leitão, 1932), **syn. nov.**.
Tityus (*Archaeotityus*) Lourenço, 2006 = *Mesotityus* González-Sponga, 1981b, **syn. nov.**
Tityus bahiensis eickstedtae Lourenço, 1982a = *Tityus bahiensis* (Perty, 1833), **syn. nov.**
Tityus confluens bodoquena Lourenço, Cabral & Bruehmueller Ramos, 2004a = *Tityus confluens* Borelli, 1899a, **syn. nov.**
Tityus fasciolatus Pessôa, 1935 = *Tityus charreyroni* Vellard, 1932, **syn. nov.**

Superfamily **Chaeriloidea** Pocock, 1893b
Family **Chaerilidae** Pocock, 1893b
Subfamily **Chaerilinae** Pocock, 1893b

Chaerilourencous Rossi, 2018a = *Chaerilus* Simon, 1877, **syn. nov.**

Parvorder **Iurida** Soleglad & Fet, 2003
Superfamily **Bothriuroidea** Simon, 1880
Family **Bothriuridae** Simon, 1880
Subfamily **Bothriurinae** Simon, 1880

Andibothriurus Maury, 1975a, **stat. nov.**
Andibothriurus burmeisteri (Kraepelin, 1894), **comb. nov.**
Andibothriurus ceii (Ojanguren-Affilastro, 2007), **comb. nov.**
Andibothriurus chilensis (Molina, 1782), **comb. nov.**
Andibothriurus coriaceus (Pocock, 1893a), **comb. nov.**
Andibothriurus dumayi (Cekalovic, 1974), **comb. nov.**
Andibothriurus flavidus (Kraepelin, 1911), **comb. nov.**
Andibothriurus huincul (Mattoni, 2007), **comb. nov.**
Andibothriurus keyserlingi (Pocock, 1893a), **comb. nov.**
Andibothriurus mistral (Ojanguren-Affilastro, Mattoni, Alfaro & Pizarro-Araya, in Ojanguren-Affilastro, Benítez, Iuri, Mattoni, Alfaro & Pizarro-Araya, 2023), **comb. nov.**
Andibothriurus nendai (Ojanguren-Affilastro & García-Mauro, 2010), **comb. nov.**
Andibothriurus noa (Maury, 1984), **comb. nov.**
Andibothriurus olaen (Acosta, 1997), **comb. nov.**
Andibothriurus pampa (Ojanguren-Affilastro, 2002b), **comb. nov.**
Andibothriurus patagonicus (Maury, 1968), **comb. nov.**
Andibothriurus pichicuy (Mattoni, 2002a), **comb. nov.**
Andibothriurus picunche (Mattoni, 2002b), **comb. nov.**
Andibothriurus sanctacrucis (Mattoni, 2007), **comb. nov.**
Andibothriurus vittatus (Guérin Méneville, 1838), **comb. nov.**
Andibothriurus ypsilon (Mello-Leitão, 1935), **comb. nov.**
Bothriurus araponguensis Bücherl, San Martín, Flôres da Cunha, Matthiesen, Zimber & Bücherl, 1963, **stat. nov.**
Bothriurus pantanalensis (Lourenço & Monod, 2000), **comb. nov.**
Bothriurus rochai occidentalis Lourenço, 2000e = *Bothriurus rochai* Mello-Leitão, 1932, **syn. nov.**
Brachistosternus (*Ministernus*) Francke, 1985 = *Brachistosternus* Pocock, 1893d, **syn. nov.**
Brazilobothriurus Lourenço & Monod, 2000 = *Bothriurus* Peters, 1861b, **syn. nov.**

Superfamily **Caraboctonoidea** Kraepelin, 1905
Family **Caraboctonidae** Kraepelin, 1905

Hadruroides (*Lourencoides*) Rossi, 2014a = *Hadruroides* Pocock, 1893b, **syn. nov.**
Hadruroides apu (Ythier & Lourenço, 2023), **comb. nov.**
Hadruroides doriai (Rossi, 2014a), **comb. nov.**
Hadruroides elenae (Rossi, 2014a), **comb. nov.**
Hadruroides inti (Ythier, 2021), **comb. nov.**
Hadruroides moreti (Rossi, 2014a), **comb. nov.**

Superfamily **Chactoidea** Pocock, 1893b
Family **Anuroctonidae** Santibáñez-López, Ojanguren-Affilastro, Graham & Sharma, 2023

Anuroctonus bajae Soleglad & Fet, 2004, **stat. nov.**

Family **Chactidae** Pocock, 1893b
Subfamily **Chactinae** Pocock, 1893b

Brotheinae Simon, 1879 = Chactinae Pocock, 1893b, **syn. nov.**
Neochactini Soleglad & Fet, 2003 = Chactinae Pocock, 1893b, **syn. nov.**
Cayooca González-Sponga, 1996b, **stat. rev.**
Chactas (*Andinochactas*) González-Sponga, 1978 = *Chactas* Gervais, 1844, **syn. nov.**
Chactas (*Brachychactas*) Mello-Leitão, 1945 = *Chactas* Gervais, 1844, **syn. nov.**

Chactas (*Caribeochactas*) González-Sponga, 1978 = *Chactas* Gervais, 1844, **syn. nov.**
Chactas (*Euchactas*) Mello-Leitão, 1945 = *Chactas* Gervais, 1844, **syn. nov.**
Neochactas Soleglad & Fet, 2003, **stat. rev.**
Neochactas aluku (Ythier, 2018), **comb. nov.**
Neochactas amapaensis (Lourenço & Qi, 2007a), **comb. nov.**
Neochactas aurum (Ythier, 2018), **comb. nov.**
Neochactas cauaburi (Lourenço, Araújo & Franklin, 2010b), **comb. nov.**
Neochactas cocuyensis (González-Sponga, 2004a), **comb. nov.**
Neochactas danielleae (Lourenço, 2007c), **comb. nov.**
Neochactas laurae (Ythier, 2015), **comb. nov.**
Neochactas niemeyerae (Lourenço, Giupponi & Pedroso, 2011), **comb. nov.**
Neochactas parimensis (González-Sponga, 2004b), **comb. nov.**
Neochactas purus (Lourenço, 2017a), **comb. nov.**
Neochactas royi (Ythier, 2018), **comb. nov.**
Neochactas silves (Lourenço, 2014b), **comb. nov.**
Neochactas surinamensis (Lourenço & Duhem, 2010), **comb. nov.**
Taurepania González-Sponga, 1978, **stat. rev.**
Taurepania mauriciodiasi Lourenço, 2017b, **comb. nov.**

Subfamily **Chactopsinae** Soleglad & Sissom, 2001, **stat. nov.**

Family **Euscorpiidae** Laurie, 1896

Subfamily **Euscorpiinae** Laurie, 1896

Alpiscorpius karamani Tropea, 2021, **comb. nov.**
Alpiscorpius pavicevici Tropea, 2021, **comb. nov.**
Alpiscorpius zloporubovici Tropea, 2021, **comb. nov.**
Alpiscorpius (*Balkanscorpius*) Tropea, 2021 = *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999, **syn. nov.**
Alpiscorpius (*Hadzius*) Tropea, 2021 = *Alpiscorpius* Gantenbein, Fet, Largiadèr & Scholl, 1999, **syn. nov.**
Euscorpius flavus Vignoli, in Podnar, Vignoli & Tvrtković, 2024, **stat. nov.**
Euscorpius flavicaudis galitae Caporiacco, 1950 = *Tetratrichobothrius flavicaudis* (DeGeer, 1778), **syn. nov.**
Euscorpius molisanus Tropea, 2017, **stat. nov.**
Euscorpius (*Polytrichobothrius*) Birula, 1917 = *Euscorpius* Thorell, 1876a, **syn. nov.**
Tetratrichobothrius cereris (Bonacina & Rivellini, 1986), **comb. et stat. nov.**

Subfamily **Megacorminae** Kraepelin, 1899

Megacormus dilutus (Karsch, 1881b), **comb. nov.**
Megacormus mitchelli (Soleglad, 1976), **comb. nov.**
Megacormus vasquezi (Trujillo & Armas, 2012), **comb. nov.**
Plesiochactas Pocock, 1900c = *Megacormus* Karsch, 1881b, **syn. nov.**

Family **Nullibrotheidae** Soleglad & Fet, 2003, **stat. nov.**

Family **Scorpiopidae** Kraepelin, 1905

Subfamily **Scorpiopinae** Kraepelin, 1905

Alloscorpiops Vachon, 1980b, **stat. rev.**
Alloscorpiops bastawadei (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Alloscorpiops birulai (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Alloscorpiops calmonti (Lourenço, 2013), **comb. nov.**
Alloscorpiops kautti (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Alloscorpiops krabiensis (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Alloscorpiops lindstroemi (Thorell, 1889), **stat. rev.**
Alloscorpiops profusus (Lourenço, 2017c), **comb. nov.**
Alloscorpiops scheibeae (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Alloscorpiops (*Laoscorpiops*) Lourenço, 2013 = *Alloscorpiops* Vachon, 1980b, **syn. nov.**
Dasyscorpiops Vachon, 1974, **stat. rev.**
Euscorpiops Vachon, 1980b, **stat. rev.**
Euscorpiops ciki (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops deshpandei (Tang, Ouyang, Liu & Šťáhlavský, 2024), **comb. nov.**
Euscorpiops dii (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops doiphukha (Ythier, Košulič, Nawanetiwong & Lourenço, 2025b), **comb. nov.**
Euscorpiops dunlopi (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops krachan (Nawanetiwong, Košulič, Warrit, Lourenço & Ythier, 2024), **comb. nov.**
Euscorpiops lowei (Tang, 2022c), **comb. nov.**
Euscorpiops phatoensis (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops piceus (Lourenço & Ythier, 2022), **comb. nov.**
Euscorpiops prasiti (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops reini (Tang, 2024), **comb. nov.**
Euscorpiops schumacheri (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops sherwoodae (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops solegladi (Kovařík, Lowe, Stockmann & Šťáhlavský, 2020), **comb. nov.**
Euscorpiops tangae (Kovařík, Šťáhlavský & Stockmann 2024b), **comb. nov.**
Euscorpiops zhui (Lv, Lourenço & Di, 2023), **comb. nov.**
Neoscorpiops Vachon, 1980b, **stat. rev.**
Neoscorpiops bahunetra (Deshpande, Joshi, Ukale, Bastawade, Tang, Gowande, Monod & Sulakhe, 2025), **comb. nov.**
Neoscorpiops lioneli (Sulakhe, Deshpande, Dandekar, Padhye & Bastawade, 2021), **comb. nov.**
Neoscorpiops nagphani (Sulakhe, Deshpande, Dandekar, Padhye & Bastawade, 2021), **comb. nov.**
Neoscorpiops neera (Sulakhe, Deshpande, Dandekar, Padhye & Bastawade, 2021), **comb. nov.**
Neoscorpiops telbaila (Sulakhe, Deshpande, Dandekar, Ketkar, Padhye & Bastawade, 2020), **comb. nov.**

Neoscorpiops vrushchik (Sulakhe, Deshpande, Dandekar, Padhye & Bastawade, 2021), **comb. nov.**
Plethoscorpiops Lourenço, 2017c = *Alloscorpiops* Vachon, 1980b, **syn. nov.**

Family **Troglotayosicidae** Lourenço, 1998a, **stat. rev.**

Family **Uroctonidae** Mello-Leitão, 1934a, **stat. nov.**

Uroctonus mordax pluridens Hjelle, 1972 = *Uroctonus mordax* Thorell, 1876a, **syn. nov.**

Superfamily **Hadruroidea** Stahnke, 1974
Family **Hadruridae** Stahnke, 1974

Hadrurus arizonensis austrinus Williams, 1970b = *Hadrurus arizonensis* Ewing, 1928, **syn. nov.**

Superfamily **Iuroidea** Thorell, 1876a
Family **Iuridae** Thorell, 1876a
Subfamily **Iurinae** Thorell, 1876a

Anatoliurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**
Iurus kumlutasi (Yağmur, Soleglad, Fet & Kovařík, 2015), **comb. nov.**
Iurus rhodiensis (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.**
Iurus stathiae (Soleglad, Fet, Kovařík & Yağmur, 2012), **comb. nov.**
Letoiurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**
Metaiurus Parmakelis, Dimitriadou, Gkigkiza, Karampatsou, Stathi, Fet, Yağmur & Kovařík, 2022 = *Iurus* Thorell, 1876a, **syn. nov.**
Protoiurus Soleglad, Fet, Kovařík & Yağmur, 2012 = *Iurus* Thorell, 1876a, **syn. nov.**

Superfamily **Scorpionoidea** Latreille, 1802
Family **Diplocentridae** Karsch, 1880a, **stat. rev.**
Subfamily **Diplocentrinae** Karsch, 1880a

Cazierius barahonae (Teruel, Armas & Kovařík, 2015a), **comb. nov.**
Cazierius bermudezi (Moreno, 1938), **comb. nov.**
Cazierius caymanensis (Francke, 1978), **comb. nov.**
Cazierius cicero (Armas & Marcano-Fondeur, 1987), **comb. nov.**
Cazierius clareae (Armas, 2001), **comb. nov.**
Cazierius dominicus (Armas, 1981), **comb. nov.**
Cazierius elegans (Francke, 1978), **comb. nov.**
Cazierius jamaicae (Francke, 1978), **comb. nov.**
Cazierius morenoi (Armas, 1973), **comb. nov.**
Cazierius nibujon (Armas, 1984), **comb. nov.**
Cazierius occidentalis (Francke, 1978), **comb. et stat. nov.**
Cazierius portlandensis (Francke, 1978), **comb. et stat. nov.**
Cazierius portoricensis (Francke, 1978), **comb. nov.**
Cazierius pumilus (Armas, 1981), **comb. nov.**
Cazierius vachoni (Francke, 1978), **comb. nov.**
Cazierius yntemai (Francke & Sissom, 1980), **comb. nov.**
Diplocentrus actun Armas & Palacios-Vargas, 2002 = *Diplocentrus anophthalmus* Francke, 1977b, **syn. nov.**
Diplocentrus mexicanus karschi Sissom & Francke Ballve, 1998 = *Diplocentrus mexicanus* Peters, 1861b, **syn. nov.**
Oiclus sabae Francke, 1978, **stat. nov.**
Troglopolyphemos Rossi, 2018b = *Diplocentrus* Peters, 1861b, **syn. nov.**

Subfamily **Nebinae** Kraepelin, 1905, **stat. rev.**

Family **Hormuridae** Laurie, 1896
Subfamily **Hadogeninae** Lourenço, 1999b, **stat. rev.**

Hadogenes austroafricanus Penther, 1900 [*nomen dubium*]
Hadogenes caffer Hewitt, 1918, **stat. nov.**
Hadogenes crassicaudatus Hewitt, 1918, **stat. nov.**
Hadogenes dentatus Hewitt, 1918, **stat. nov.**
Hadogenes gracilioides Hewitt, 1918, **stat. nov.**
Hadogenes letabensis Werner, 1933, **stat. nov.**
Hadogenes matoppoanus Hewitt, 1918, **stat. nov.**
Hadogenes pallidus Pocock, 1898e, **stat. rev.**
Hadogenes trichiurus parvus Hewitt, 1925 = *Hadogenes whitei* Purcell, 1899, **syn. nov.**
Hadogenes whitei Purcell, 1899, **stat. rev.**

Subfamily **Hormurinae** Laurie, 1896

Hadogenes trichiurus werneri Fet, 1997a = *Hormurus paucidens* (Werner, 1939b), **syn. nov.**
Hormurus australasiae brevidigitatus Werner, 1936 = *Liocheles australasiae* (Fabricius, 1775), **syn. nov.**
Hormurus paucidens (Werner, 1939b), **comb. nov. et stat. rev.**
Tibetiomachus Lourenço & Qi, 2006 = *Liocheles* Sundevall, 1833, **syn. nov.**
Tibetiomachus himalayensis Lourenço & Qi, 2006 = *Liocheles nigripes* (Pocock, 1897a), **syn. nov.**

Subfamily **Opisthacanthinae** Kraepelin, 1905, **stat. rev.**

Cheloctonus africanus (Simon, 1876), **comb. nov.**
Cheloctonus anthracinus warreni Hewitt, 1931 = *Cheloctonus anthracinus* Pocock, 1899f, **syn. nov.**
Cheloctonus asper (Peters, 1861b), **comb. nov.**
Cheloctonus basutus (Lawrence, 1955), **comb. nov.**
Cheloctonus capensis (Thorell, 1876b), **comb. nov.**
Cheloctonus depressus Hewitt, 1918, **stat. nov.**
Cheloctonus diremptus (Karsch, 1879b), **comb. nov.**
Cheloctonus jonesii sculpturatus Hewitt, 1914 = *Cheloctonus jonesii* Pocock, 1892, **syn. nov.**
Cheloctonus laevipes (Pocock, 1893b), **comb. nov.**
Cheloctonus lamorali (Lourenço, 1981b), **comb. nov.**

Cheloctonus mossambicensis (Lourenço & Ythier, 2024), **comb. nov.**
Cheloctonus piscatorius (Lawrence, 1955), **comb. nov.**
Cheloctonus rugiceps (Pocock, 1897b), **comb. nov.**
Cheloctonus rugulosus (Pocock, 1896a), **comb. nov.**
Cheloctonus validus (Thorell, 1876b), **comb. nov.**
Iomachus politus occidentalis Lourenço, 2003c = *Iomachus politus* Pocock, 1896a, **syn. nov.**
Iomachus tirupati (Lourenço, 1997f), **comb. nov.**
Nepabellus Francke, 1974 = *Cheloctonus* Pocock, 1892, **syn. nov.**
Opisthacanthus africanus pallidus (Lourenço, 2003c) = *Cheloctonus africanus* (Simon, 1876), **syn. nov.**
Opisthacanthus (*Monodopisthacanthus*) Lourenço, 2001e = *Palaeocheloctonus* Lourenço, 1996c, **syn. nov.**
Palaeocheloctonus ambanja (Lourenço, 2014c), **comb. nov.**
Palaeocheloctonus andohahela (Lourenço, 2014c), **comb. nov.**
Palaeocheloctonus antongil (Lourenço, Wilmé & Ythier, 2025b), **comb. nov.**
Palaeocheloctonus antsiranana (Lourenço, 2014c), **comb. nov.**
Palaeocheloctonus darainensis (Lourenço & Goodman, 2006), **comb. nov.**
Palaeocheloctonus faillei (Lourenço & Wilmé, 2019), **comb. nov.**
Palaeocheloctonus kraepelini, **nom. nov.** [Replacement name for *Opisthacanthus* (*Monodopisthacanthus*) *pauliani* Lourenço & Goodman, 2008, a junior homonym of *Palaeocheloctonus pauliani* Lourenço, 1996c.]
Palaeocheloctonus lavasoa (Lourenço, Wilmé & Waeber, 2016), **comb. nov.**
Palaeocheloctonus lourencoi (Ythier, 2022), **comb. nov.**
Palaeocheloctonus lucienneae (Lourenço & Goodman, 2006), **comb. nov.**
Palaeocheloctonus maculatus (Lourenço & Goodman, 2006), **comb. nov.**
Palaeocheloctonus madagascariensis (Kraepelin, 1894), **comb. nov.**
Palaeocheloctonus milloti (Lourenço & Goodman, 2008), **comb. nov.**
Palaeocheloctonus piceus (Lourenço & Goodman, 2006), **comb. nov.**
Palaeocheloctonus titanus (Lourenço, Wilmé & Waeber, 2018), **comb. nov.**

Family **Scorpionidae** Latreille, 1802
Subfamily **Heterometrinae** Simon, 1879

Heterometrus cimrmani Kovařík, 2004a = *Heterometrus laevigatus* (Thorell, 1876b), **syn. nov.**
Heterometrus laevigatus (Thorell, 1876b), **stat. rev.**
Heterometrus minotaurus Plíšková, Kovařík, Košulič & Šťáhlavský, 2016, **stat. rev.**

Subfamily **Scorpioninae** Latreille, 1802

Jordanius Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024 = *Scorpio* Linnaeus, 1758, **syn. nov.**
Scorpio arabicus (Pocock, 1900e), **stat. rev.**
Scorpio behringsi Schenkel, 1949, **stat. nov.** [*nomen dubium*]
Scorpio legionis Werner, 1932, **stat. nov.**
Scorpio maysaraensis (Abu Afifeh, Yağmur, Al-Saraireh & Amr, 2024), **comb. nov.**
Scorpio stemmleri Schenkel, 1949, **stat. nov.** [*nomen dubium*]
Scorpio townsendi (Pocock, 1900e), **stat. rev.**

Superfamily **Vaejovoidea** Thorell, 1876a
Family **Vaejovidae** Thorell, 1876a
Subfamily **Smeringurinae** Soleglad & Fet, 2008

Paruroctonus actites Haradon, 1984b, **stat. nov.**
Paruroctonus nevadae Haradon, 1985, **stat. nov.**
Paruroctonus nudipes Haradon, 1984a, **stat. nov.**
Paruroctonus saratoga Haradon, 1985, **stat. nov.**

Subfamily **Stahnkeinae** Soleglad & Fet, 2006, **stat. nov.**

Serradigitus striatus (Hjelle, 1972), **stat. nov.**
Stahnkeus Soleglad & Fet, 2006 = *Serradigitus* Stahnke, 1974, **syn. nov.**

Subfamily **Vaejovinae** Thorell, 1876a

Catalinia apacheanus (Gertsch & Soleglad, 1972), **comb. nov.**
Catalinia brysoni (Ayrey & Soleglad, 2017), **comb. nov.**
Catalinia cazieri (Gertsch & Soleglad, 1972), **comb. nov.**
Catalinia chicano (Gertsch & Soleglad, 1972), **comb. nov.**
Catalinia kremani (Ayrey & Soleglad, 2015), **comb. nov.**
Catalinia lindsayi (Gertsch & Soleglad, 1972), **comb. nov.**
Catalinia moyeri (Ayrey, Kovařík & Myers, 2021), **comb. nov.**
Catalinia peccatum (Tate, Riddle, Soleglad & Graham, 2013), **comb. nov.**
Catalinia rufulus (Gertsch & Soleglad, 1972), **comb. nov.**
Catalinia santarita (Ayrey & Soleglad, 2015), **comb. nov.**
Catalinia savvasi (Francke, 2009), **comb. nov.**
Franckeus Soleglad & Fet, 2005a = *Vaejovis* C.L. Koch, 1836, **syn. nov.**
Ruberhieronymus Rossi, 2018b = *Catalinia* Soleglad, Ayrey, Graham & Fet, 2017, **syn. nov.**

Note Added in Proof

Recently, Ythier *et al.* (2026) described two new species of *Autantepuia* González-Sponga, 1978. As discussed under the treatment of that genus, these species are more appropriately placed in *Neochactas* Soleglad & Fet, 2003, hence:

Neochactas kwata (Ythier, Chevalier, Moreau & Murienne, 2026), **comb. nov.**

Neochactas mammandian (Ythier, Chevalier, Moreau & Murienne, 2026), **comb. nov.**

Ythier, E., Chevalier, J., Moreau, L. & Murienne, J. (2026) A phylogenomic analysis of the genus *Auyantepuia* (Scorpiones: Chactidae) in French Guiana with the descriptions of two new species. *European Journal of Taxonomy*, 1034, 31–57. https://doi.org/10.5852/ejt.2026.1034.3147